

SHARP SERVICE MANUAL

CODE: 00ZAR5132FM1E



DIGITAL COPIER NO.1

MODEL AR-5132

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Parts marked with "⚠" is important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

CAUTION

This copier machine is a class 1 laser product that complies with 21CFR 1040.10 and 1040.11 of the CDRH standard and IEC825. This means that this machine does not produce hazardous laser radiation. The use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

This laser radiation is not a danger to the skin, but when an exact focusing of the laser beam is achieved on the eye's retina, there is the danger of spot damage to the retina.

The following cautions must be observed to avoid exposure of the laser beam to your eyes at the time of servicing.

- 1) When a problem in the laser optical unit has occurred, the whole optical unit must be exchanged as a unit, not as individual parts.
- 2) Do not look into the machine with the main switch turned on after removing the developer unit, toner cartridge, and drum cartridge.
- 3) Do not look into the laser beam exposure slit of the laser optical unit with the connector connected when removing and installing the optical system.
- 4) The safety interlock switch is equipped.

Do not defeat the safety interlock by inserting wedges or other items into the switch slot.

**CLASS 1
LASER PRODUCT**

LASER KLASSE 1

LASER WAVE – LENGTH : 785 ± 15nm
Pulse times : 5.66µs/7mm
Out put power : 0.3mW ~ 0.6mW

CAUTION

INVISIBLE LASER RADIATION,
WHEN OPEN AND INTERLOCKS DEFEATED.
AVOID EXPOSURE TO BEAM.

VORSICHT

UNSICHTBARE LASERSTRAHLUNG,
WENN ABDECKUNG GEÖFFNET UND
SICHERHEITSVERRIEGELUNG ÜBERBRÜCKT.
NICHT DEM STRAHL AUSSETZEN.

VARO !

AVATTAESSA JA SUOJALUKITUS
OHITETTAESSA OLET ALTTIINA
NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE ÄLÄ
KATSO SÄTEESEEN.

ADVARSEL

USYNLIG LASERSTRÅLNING VED ÅBNING, NÅR
SIKKERHEDSBRYDERE ER UDE AF
FUNKTION. UNDGA UDSÆTTELSE FOR
STRÅLNING.

VARNING !

OSYNLIG LASERSTRÅLNING NÅR DENNA DEL
ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD.
BETRAKTA EJ STRÅLEN. – STRÅLEN ÄR
FARLIG.

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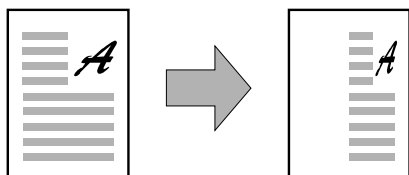
[1] GENERAL

1. Features of copying functions

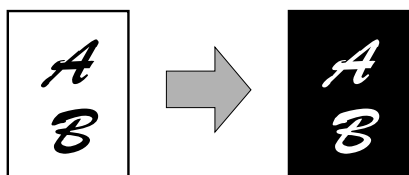
(1) Various functions in the digital system

Different from the conventional analog copiers, the original image data scanned by the CCD sensor (which converts optical signals into electrical signals) are converted into digital signals. With the printer kit (option), in addition to copying functions, this machine can be connected with a computer to serve as a printer. The other features include the independent zooming function and black-white reversing function.

Independent zooming copy

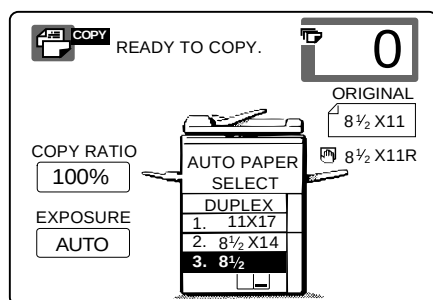


Black-white reversing copy



(2) Message screen

The message screen employs the LCD display with backlight, and displays the operational descriptions and paper jam removal procedure, etc.



(3) Front loading paper tray

The paper trays including the two-step paper feed desk employ a front loading system to facilitate paper loading.

(4) 351-step zooming by the electronic zooming function

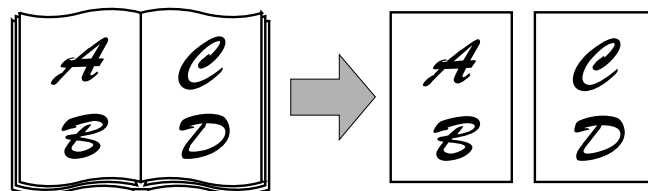
The electronic zooming function allows 351-step zooming from 50% to 400% (1% increment).

(5) Paper/magnification ratio auto selection

When the desired magnification ratio is specified, the suitable paper size is automatically selected by the original size detection function. If the copy paper size is specified, then the suitable magnification ratio is automatically selected.

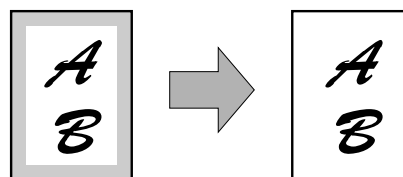
(6) 1-set 2-copy

The right and the left pages of a book, etc. can be copied into two sheets of paper continuously.



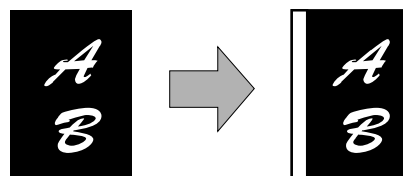
(7) Edge erase copying

Shade at the copy edge can be automatically erased.



(6) Binding margin copying

Copying with binding margin can be made.



(9) Copy conditions registration/recall

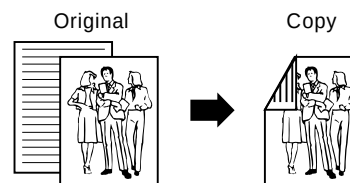
Nine sets of complicated copying procedures can be stored and recalled when necessary.

(10) Key operator program

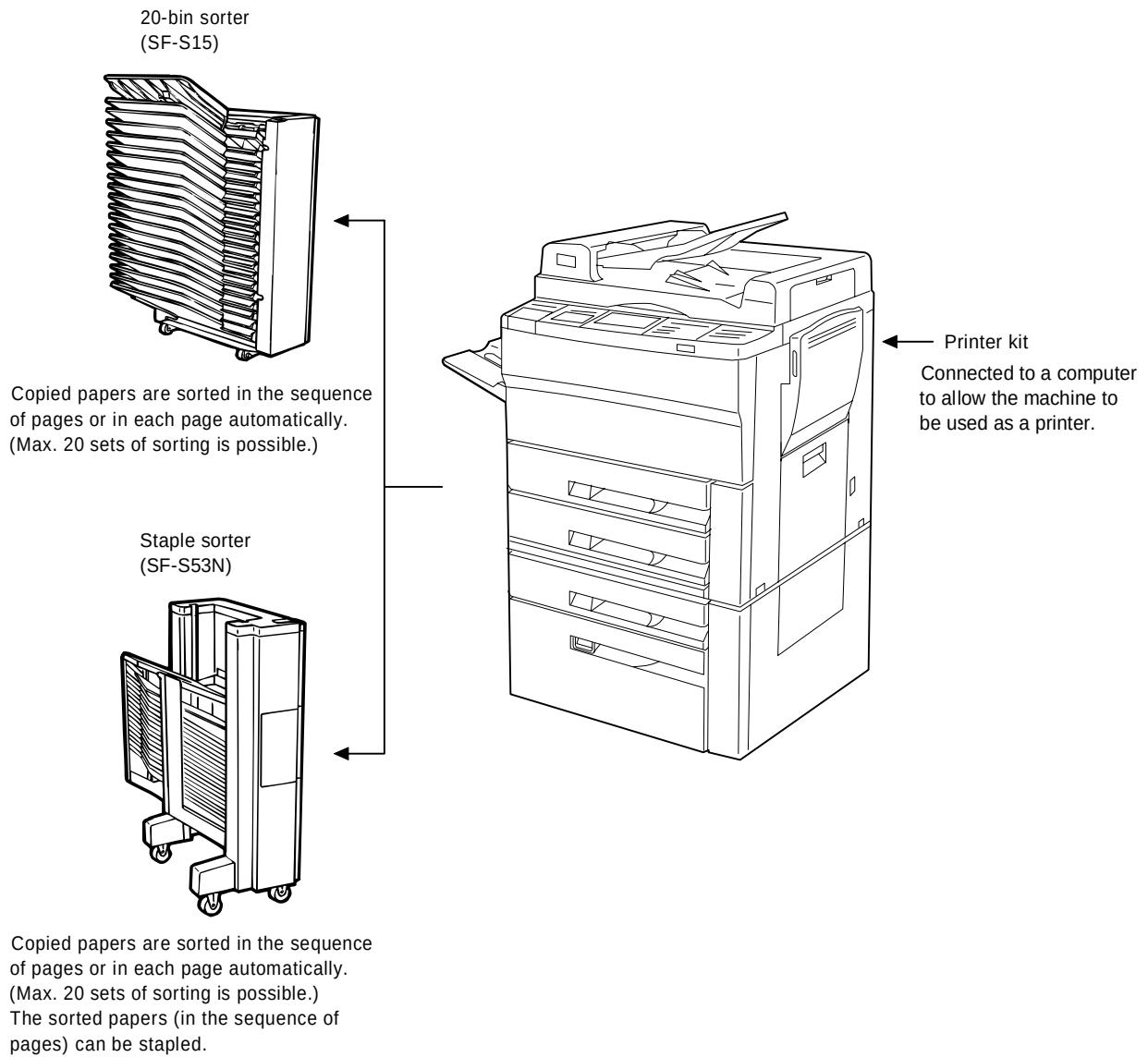
The key operator program is used by the key operator to set and cancel the customer functions.

(11) Auto duplex copy

Duplex copy is made automatically.



2. System outline (options)



[2] SPECIFICATIONS

1. Basic specifications

- (1) **Type: Console**
(The desk is standard equipment, but packaged separately.)
- (2) **Copy system: Static electricity transfer, dry copier**
- (3) **Scanning system**
Miniature optical, CCD linear sensor
Linear sequential scanning by light source shifting
Basic scanning resolution: 400 dpi

(4) Copy speed

Paper size	Normal	Enlargement	Reduction
Letter	32	17	23
W-letter	17	16	17
Legal	19	17	19
Letter-R	23	17	21
Invoice	32	17	23

Paper size	Normal	Enlargement	Reduction
A4	32	17	23
A3	17	16	17
B4	19	17	19
A4R	23	17	21
A5	32	17	23

(5) First copy time

4.6 seconds	When a sheet of A4 or letter size paper is fed from the paper tray 1
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ADU	No data	ADU standard equipment
Paper tray 1	4.6 sec	
Paper tray 2	5.3 sec	
Paper tray 3	5.5 sec	LCC

(6) Document

Max. document size	437 × 301 mm (same for both AB/Inch systems)
Document positioning reference point	Left center (when OC is used.)

(7) Paper feed

Paper feed port	500 sheets cassette × 2 3000 sheets cassette (LCC type) Manual feed tray
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Tray size (factory setting)

ADU	ADU	Standard
Paper tray 1	A3/W-letter	Supplied as accessory
Paper tray 2	A4R/Legal	
Paper tray 3	A4/Letter	

① Manual feed tray

Tray type	Folding type (2-stage telescopic)
Copy paper size	A3 ~ A6R W letter size ~ invoice form
Detectable paper size	A3, B4, A4, A4R, A5 W-letter, Legal, Letter, Letter-R, Invoice
Feedable paper size	Single feed: 56 ~ 128 g/m ² Multi feed: 56 ~ 80 g/m ² (50 sheets) (A4/Letter size or smaller when paper weight is more than 104 g/m ²)
Special type of paper	OHP with backing paper (backing paper is removed when set), label paper, recycled paper, blueprint paper, index paper

② Paper tray 1/paper tray 2

Cassette type	Paper tray 1: Inner type Paper tray 2: Integral with drawer
Copy paper size	A3 ~ A5 (A5R is available only for inner type) W letter size ~ Invoice form (Invoice form is available only for inner type)
Size change	To be performed only by service person - Changing regulating plate mounting position - Moving size detection block - Changing size display
Feedable paper size	56 ~ 80 g/m ² (including recycled paper)
Capacity	500 sheets (total thickness: less than 54 mm)

③ Paper tray 3

Cassette type	LCC (Large capacity cassette) type
Copy paper size	A4 Letter
Size change	To be performed only by service person - Changing regulating plate mounting position - Moving size detection block - Changing size display
Feedable paper size	56 ~ 80 g/m ² (including recycled paper)
Capacity	3000 sheets (1500 sheets for each stage) Total thickness: less than 165 mm (Thickness of 1500 sheets)

(8) Job speed

S → S	32 sheets/min (10 documents and 1 copy per document)
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Conditions: with duplex unit and without stapler
Excluding first copy.

S → D	20 surfaces/min (10 documents and 5 copies per document)
D → D	20 surfaces/min (5 documents and 5 copies per document)
D → S	25 surfaces/min (5 documents and 5 copies per document)

(9) Multi copy mode

Maximum setting	999 copies
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(10) Warm-up time

Power ON → lighting of ready lamp	Approx. 90 sec. Rated voltage input, ambient temperature 20°C, humidity 65%RH
JAM recovery	10 sec. (reference value) (Varies depending on the fusing temperature at which a paper jam occurs)

(11) Fixed magnification

Inch series	10 steps	400, 200, 141, 129, 121, 100, 95, 77, 64, 50
AB series	10 steps	400, 200, 141, 122, 115, 100, 86, 81, 70, 50

(12) Zooming

Zooming	50 ~ 400%	Adjustable in steps of 1%
Independent zooming, longitudinal	50 ~ 400%	Adjustable in steps of 1%
Independent zooming, lateral	50 ~ 400%	Adjustable in steps of 1%

(13) Printing area

Paper size	(mm)
A3	416 × 293
B4	360 × 253
A4	206 × 293
A4R	293 × 206
A5	144 × 206

Paper size	(mm)
W Letter	428 × 275
Legal	352 × 212
Letter	212 × 275
Letter-R	275 × 212
Invoice	136 × 212

(14) Void area and image loss

Void area	Less than 3 mm at leading edge, less than 3 mm at trailing edge, less than 5 mm in the sum of both.
Image loss	Less than 5 mm at leading edge, less than 5 mm at sides of both leading and trailing edges (at 100% magnification)

(15) ADU

	Standard
Paper size	A3, B4, A4, A4R, A5 (B5, B5R) W-letter, Legal, Letter, Letter-R
Paper weight	56 ~ 80 g/m ²
Capacity	A4 · B5/Letter: 50 sheets A3 · B4/W-letter, Legal: 30 sheets
Power source	Supplied from the main body.

(16) Paper exit tray

Capacity	250 sheets
Sorter	Option (For details, see optional specifications.)

(17) Additional functions

APS	○
AMS	○
Duplex copy	○
Sorter	Option
Copy condition registration and call	9 copy functions
Independent zooming	50 ~ 400% in longitudinal and lateral directions, each
1-set 2-copy	Not available in enlargement mode
Binding margin	Shift width: 9 mm, 3/8" (width is adjustable, but binding direction is fixed) (Setting by key operator program)
Edge erase	Width: 5 mm, 1/4" Adjustable by key operator program
Reverse video	Entire surface only
Preheating function	Adjustable by key operator program
Auto-power shut-off	Adjustable by key operator program
Message display	○
Guidance display	○ (images available)
Self-diagnostics	○
Key operator program	○
Process control	○

(18) Machine configuration

	Model	
Main body	AR-5132	
RADF		Standard
ADU		Standard
DESK		Standard
20 bin sorter	SF-S15	Option
20 bin staple sorter	SF-S53N	Option
Printer kit	AR-BD14	Option

(19) Other specifications

Photoconductor type	OPC
OPC diameter	65 mm
Exposure lamp	Halogen lamp
Developing	2-component inversion
Charging	Scorotron
Transfer	Corotron
Separation	Corotron
Fusing	Heat roller + separation pawl + cleaning roller
Cleaning	Blade

(20) Appearance

Width × Depth × Height	638 × 680 × 1145 mm
Installation area (width × depth)	1236 × 680 mm
Weight	About 143.9 kg

(21) Power supply

Power supply	120 V, 220 V ~ 230 V, 240 V ±10%
Frequency	50/60 Hz

(22) Power consumption

Max. power consumption	Less than 1.5 kW
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2. Consumable parts

(1) SEC

NO.	Name	Description	Life	Product name	Package	Remarks
1	Drum	OPC drum × 1	160 K	AR-532DR	10	
2	Developer (black)	Developer (850 g) × 10	80 K (× 10)	AR-532MD1	1	(AR-532ND1) × 10 = AR-532MD1
3	Toner (black)	Toner cartridge (600 g) × 10	15 K (× 10)	AR-532MT1	1	(AR-532NT1) × 10 = AR-532MT1
4	Upper heat roller kit	Upper heat roller × 1 Fusing separation pawl (upper) × 4 Heat roller gear × 1	160 K	AR-532UH	5	Replacement of fusing separation pawl for every 80 K should be done using those supplied separately.
5	Lower heat roller kit	Lower heat roller × 1 Fusing separation pawl (lower) × 2	160 K	SF-240LH	5	Replacement of fusing separation pawl for every 80 K should be done using those supplied separately.
6	80K maintenance kit	Cleaner blade × 1 Charging plate unit × 1 Drum separation pawl unit × 1	80 K	AR-532KA1	5	
7	Cleaner blade	Cleaner blade × 10	80 K (× 10)	SF-222CB	1	(SF-228BL) × 10 = SF-222CB
8	Upper cleaning roller	Upper cleaning roller × 10	80 K (× 10)	SF-240UR	1	(SF-240RU) × 10 = SF-240UR
9	Lower cleaning roller	Lower cleaning roller × 10	80 K (× 10)	SF-235CR2	1	(SF-235RU) × 10 = SF-235CR2
10	Staple cartridge	Staple cartridge × 5	5000 times × 5	SD-LS20	10	(SD-SC20) × 5 = SD-LS20
11	Upper heat roller	Upper heat roller × 1	160 K	AR-532HU	5	
12	Fusing separation pawl (upper)	Fusing separation pawl (upper) × 4 × 10	80 K (× 10)	SF-216UP	1	SF-216UP = (SF-216TP) × 10 SF-216TP is supplied 4 pcs. for 1 copier. Order is received as SF-216UP.
13	Heat roller gear	Heat roller gear × 10	160 K (× 10)	AR-532HG	1	AR-532HG = (AR-532JG) × 10 Order is received as AR-532HG.
14	Lower heat roller	Lower heat roller × 1	160 K	SF-240HR	5	
15	Fusing separation pawl (lower)	Fusing separation pawl (lower) × 2 × 10	80 K (× 10)	SD-360LP	1	SD-360LP = (SD-360MP) × 10 SD-360MP is supplied 2 pcs. for 1 copier. Order is received as SD-360LP.
16	Drum separation pawl	Drum separation pawl × 2 × 10	80 K (× 10)	SF-240DP	1	SF-240DP = (SF-240EP) × 10 SF-240EP is supplied 2 pcs. for 1 copier. Order is received as SF-240DP.
17	Screen grid	Screen grid × 10	80 K (× 10)	AR-532SU	1	AR-532SU = (AR-532TU) × 10 Order is received as AR-532SU.
18	Charging plate	Charging plate × 10	80 K (× 10)	AR-532PU	1	AR-532PU = (AR-532NU) × 10 Order is received as AR-532PU.
19	Waste toner bottle	Waste toner bottle × 1		SF-240TB	5	
20	Heat insulation bushing	Heat insulation bushing × 2 × 10	160 K (× 10)	SF-240BU	1	SF-240BU = (SF-240DU) × 10 Order is received as SF-240BU.
21	Ozone filter	Ozone filter × 10	80 K (× 10)	AR-532FL	1	AR-532FL = (AR-532JL) × 10 Order is received as AR-532FL.
22	Copy lamp	Copy lamp × 10		AR-532CL	1	AR-532CL = (AR-532DL) × 10 Order is received as AR-532CL.
23	MC case	MC case × 10		AR-532MC	1	AR-532MC = (AR-532NC) × 10 Order is received as AR-532MC.

※ When replacing parts other than those given above, use service parts.

(2) SECL

NO.	Name	Description	Life	Product name	Package	Remarks
1	Drum	OPC drum × 1	160 K	AR-532DR	10	
2	Developer (black)	Developer (850 g) × 10	80 K (× 10)	AR-532MD1	1	(AR-532ND1) × 10 = AR-532MD1
3	Toner (black)	Toner cartridge (600 g) × 10	15 K (× 10)	AR-532MT1	1	(AR-532NT1) × 10 = AR-532MT1
4	160K maintenance kit	Upper heat roller × 1 Lower heat roller × 1 Toner receiving seal × 1 DV seal × 1 Heat roller gear × 1	160 K	AR-532KB	1	
5	80K maintenance kit	Upper cleaning roller × 1 Lower cleaning roller × 1 Cleaner blade × 1 Toner recovery container × 4 Fusing separation pawl (upper) × 4 Fusing separation pawl (lower) × 2 Screen grid × 1 Charging plate unit × 1 Drum separation pawl unit × 1	80 K	AR-532KA	1	
6	Staple cartridge	Staple cartridge × 5	5000 times × 5	SD-LS20	10	(SD-SC20) × 5 = SD-LS20
7	Cleaner blade	Cleaner blade × 10	80 K (× 10)	SF-222CB	1	(SF-228BL) × 10 = SF-222CB
8	Upper cleaning roller	Upper cleaning roller × 10	80 K (× 10)	SF-240UR	1	(SF-240RU) × 10 = SF-240UR
9	Lower cleaning roller	Lower cleaning roller × 10	80 K (× 10)	SF-235CR2	1	(SF-235RU) × 10 = SF-235CR2
10	Upper heat roller	Upper heat roller × 1	160 K	AR-532HU	5	
11	Fusing separation pawl (upper)	Fusing separation pawl (upper) × 4 × 10	80 K (× 10)	SF-216UP	1	SF-216LP = (SF-216MP) × 10 SF-216MP is supplied 4 pcs. for 1 copier. Order is received as SF-216LP.
12	Heat roller gear	Heat roller gear × 10	160 K (× 10)	AR-532HG	1	AR-532HG = (AR-532JG) × 10 Order is received as AR-532HG.
13	Lower heat roller	Lower heat roller × 1	160 K	SF-240HR	5	
14	Fusing separation pawl (lower)	Fusing separation pawl (lower) × 2 × 10	80 K (× 10)	SD-360LP	1	SD-360LP = (SD-360MP) × 10 SD-360MP is supplied 2 pcs. for 1 copier. Order is received as SD-360LP.
15	Drum separation pawl	Drum separation pawl × 2 × 10	80 K (× 10)	SF-240DP	1	SF-240DP = (SF-240EP) × 10 SF-240EP is supplied 2 pcs. for 1 copier. Order is received as SF-240DP.
16	Screen grid	Screen grid × 10	80 K (× 10)	AR-532SU	1	AR-532SU = (AR-532TU) × 10 Order is received as AR-532SU.
17	Charging plate	Charging plate × 10	80 K (× 10)	AR-532PU	1	AR-532PU = (AR-532NU) × 10 Order is received as AR-532PU.
18	Waste toner bottle	Waste toner bottle × 1		SF-240TB	5	
19	Heat insulation bushing	Heat insulation bushing × 2 × 10	160 K (× 10)	SF-240BU	1	SF-240BU = (SF-240DU) × 10 Order is received as SF-240BU.
20	Ozone filter	Ozone filter × 10	80 K (× 10)	AR-532FL	1	AR-532FL = (AR-532JL) × 10 Order is received as AR-532FL.
21	Copy lamp	Copy lamp × 10		AR-532CL	1	AR-532CL = (AR-532DL) × 10 Order is received as AR-532CL.
22	MC case	MC case × 10		AR-532MC	1	AR-532MC = (AR-532NC) × 10 Order is received as AR-532MC.

* When replacing parts other than those given above, use service parts.

(3) Europe

NO.	Name	Description	Life	Product name	Package	Remarks
1	Drum	OPC drum × 1	160 K	AR-532DM	10	
2	Developer (black)	Developer (850 g) × 10	80 K (× 10)	AR-532LD1	1	(AR-532DV1) × 10 = AR-532LD1
3	Toner (black)	Toner cartridge (600 g) × 10	15 K (× 10)	AR-532LT1	1	(AR-532T1) × 10 = AR-532LT1
4	160K maintenance kit	Upper heat roller × 1 Lower heat roller × 1 Toner receiving seal × 1 DV seal × 1 Heat roller gear × 1	160 K	AR-532KB	1	
5	80K maintenance kit	Upper cleaning roller × 1 Lower cleaning roller × 1 Cleaner blade × 1 Toner recovery container × 4 Fusing separation pawl (upper) × 4 Fusing separation pawl (lower) × 2 Screen grid × 1 Charging plate unit × 1 Drum separation pawl unit × 1	80 K	AR-532KA	1	
6	Staple cartridge	Staple cartridge × 5	5000 times × 5	SD-LS20	10	(SD-SC20) × 5 = SD-LS20
7	Cleaner blade	Cleaner blade × 10	80 K (× 10)	SF-222CB	1	(SF-228BL) × 10 = SF-222CB
8	Upper cleaning roller	Upper cleaning roller × 10	80 K (× 10)	SF-240UR	1	(SF-240RU) × 10 = SF-240UR
9	Lower cleaning roller	Lower cleaning roller × 10	80 K (× 10)	SF-235CR2	1	(SF-235RU) × 10 = SF-235CR2
10	Upper heat roller	Upper heat roller × 1	160 K	AR-532HU	5	
11	Fusing separation pawl (upper)	× 10	80 K (× 10)	SF-216UP	1	SF-216UP = (SF-216TP) × 10 SF-216TP is supplied 4 pcs. for 1 copier. Order is received as SF-216UP.
12	Heat roller gear	Heat roller gear × 10	160 K (× 10)	AR-532HG	1	AR-532HG = (AR-532JG) × 10 Order is received as AR-532HG.
13	Lower heat roller	Lower heat roller × 1	160 K	SF-240HR	5	
14	Fusing separation pawl (lower)	Fusing separation pawl (lower) × 2 × 10	80K (× 10)	SD-360LP	1	SD-360LP = (SD-360MP) × 10 SD-360MP is supplied 2 pcs. for 1 copier. Order is received as SD-360LP.
15	Drum separation pawl	Drum separation pawl × 2 × 10	80 K (× 10)	SF-240DP	1	SF-240DP = (SF-240EP) × 10 SF-240EP is supplied 2 pcs. for 1 copier. Order is received as SF-240DP.
16	Screen grid	Screen grid × 10	80 K (× 10)	AR-532SU	1	AR-532SU = (AR-532TU) × 10 Order is received as AR-532SU.
17	Charging plate	Charging plate × 10	80 K (× 10)	AR-532PU	1	AR-532PU = (AR-532NU) × 10 Order is received as AR-532PU.
18	Waste toner bottle	Waste toner bottle × 1		SF-240TB	5	
19	Heat insulation bushing	Heat insulation bushing × 2 × 10	160 K (× 10)	SF-240BU	1	SF-240BU = (SF-240DU) × 10 Order is received as SF-240BU.
20	Ozone filter	Ozone filter × 10	80 K (× 10)	AR-532FL	1	AR-532FL = (AR-532JL) × 10 Order is received as AR-532FL.
21	Copy lamp	Copy lamp × 10		AR-532CL	1	AR-532CL = (AR-532DL) × 10 Order is received as AR-532CL.
22	MC case	MC case × 10		AR-532MC	1	AR-532MC = (AR-532NC) × 10 Order is received as AR-532MC.

* When replacing parts other than those given above, use service parts.

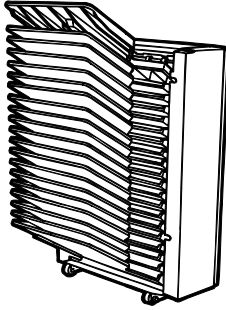
(4) SCA

NO.	Name	Description	Life	Product name	Package	Remarks
1	Drum	OPC drum × 1	160 K	AR-532DM	10	
2	Developer (black)	Developer (850 g) × 10	80 K (× 10)	AR-532LD1	1	(AR-532DV1) × 10 = AR-532LD1
3	Toner (black)	Toner cartridge (600 g) × 10	15 K (× 10)	AR-532LT1	1	(AR-532T1) × 10 = AR-532LT1
4	160K maintenance kit	Upper heat roller × 1 Lower heat roller × 1 Toner receiving seal × 1 DV seal × 1 Heat roller gear × 1	160 K	AR-532KB	1	
5	80K maintenance kit	Upper cleaning roller × 1 Lower cleaning roller × 1 Cleaner blade × 1 Toner recovery container × 4 Fusing separation pawl (upper) × 4 Fusing separation pawl (lower) × 2 Screen grid × 1 Charging plate unit × 1 Drum separation pawl unit × 1	80 K	AR-532KA	1	
6	Staple cartridge	Staple cartridge × 5	5000 times × 5	SD-LS20	10	(SD-SC20) × 5 = SD-LS20
7	Cleaner blade	Cleaner blade × 10	80 K (× 10)	SF-222CB	1	(SF-228BL) × 10 = SF-222CB
8	Upper cleaning roller	Upper cleaning roller × 10	80 K (× 10)	SF-240UR	1	(SF-240RU) × 10 = SF-240UR
9	Lower cleaning roller	Lower cleaning roller × 10	80 K (× 10)	SF-235CR2	1	(SF-235RU) × 10 = SF-235CR2
10	Upper heat roller	Upper heat roller × 1	160 K	AR-532HU	5	
11	Fusing separation pawl (upper)	Fusing separation pawl (upper) × 4 × 10	80 K (× 10)	SF-216UP	1	SF-216UP = (SF-216TP) × 10 SF-216TP is supplied 4 pcs. for 1 copier. Order is received as SF-216UP.
12	Heat roller gear	Heat roller gear × 10	160 K (× 10)	AR-532HG	1	AR-532HG = (AR-532JG) × 10 Order is received as AR-532HG.
13	Lower heat roller	Lower heat roller × 1	160 K	SF-240HR	5	
14	Fusing separation pawl (lower)	Fusing separation pawl (lower) × 2 × 10	80 K (× 10)	SD-360LP	1	SD-360LP = (SD-360MP) × 10 SD-360MP is supplied 2 pcs. for 1 copier. Order is received as SD-360LP.
15	Drum separation pawl	Drum separation pawl × 2 × 10	80 K (× 10)	SF-240DP	1	SF-240DP = (SF-240EP) × 10 SF-240EP is supplied 2 pcs. for 1 copier. Order is received as SF-240DP.
16	Screen grid	Screen grid × 10	80 K (× 10)	AR-532SU	1	AR-532SU = (AR-532TU) × 10 Order is received as AR-532SU.
17	Charging plate	Charging plate × 10	80 K (× 10)	AR-532PU	1	AF-532PU = (AR-532NU) × 10 Order is received as AR-532PU.
18	Waste toner bottle	Waste toner bottle × 1		SF-240TB	5	
19	Heat insulation bushing	Heat insulation bushing × 2 × 10	160 K (× 10)	SF-240BU	1	SF-240BU = (SF-240DU) × 10 Order is received as SF-240BU.
20	Ozone filter	Ozone filter × 10	80 K (× 10)	AR-532FL	1	AR-532FL = (AR-532JL) × 10 Order is received as AR-532FL.
21	Copy lamp	Copy lamp × 10		AR-532CL	1	AR-532CL = (AR-532DL) × 10 Order is received as AR-532CL.
22	MC case	MC case × 10		AR-532MC	1	AR-532MC = (AR-532NC) × 10 Order is received as AR-532MC.

* When replacing parts other than those given above, use service parts.

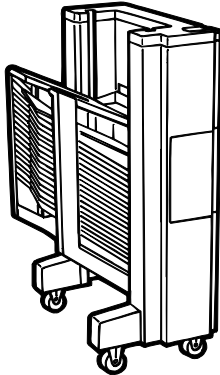
[3] OPTIONS SPECIFICATIONS

1. SF-S15



Name	20-bin sorter
No. of bins	20 bins
Paper collection	Copy face up
Capacity per bin	Max. 50 sheets (100 sheets: Top bin)
Allowable paper size/weight for collating	Max. A3, Min.: B5 (Min. A6 for non-sort) Non-sort: 52 ~ 128g/m ² , Sort/Grouping: 56 ~ 80g/m ²
Power source	Supplied from the copier.
Dimensions	500mm (W) × 520mm (D) × 957mm (H)
Weight	About 13kg

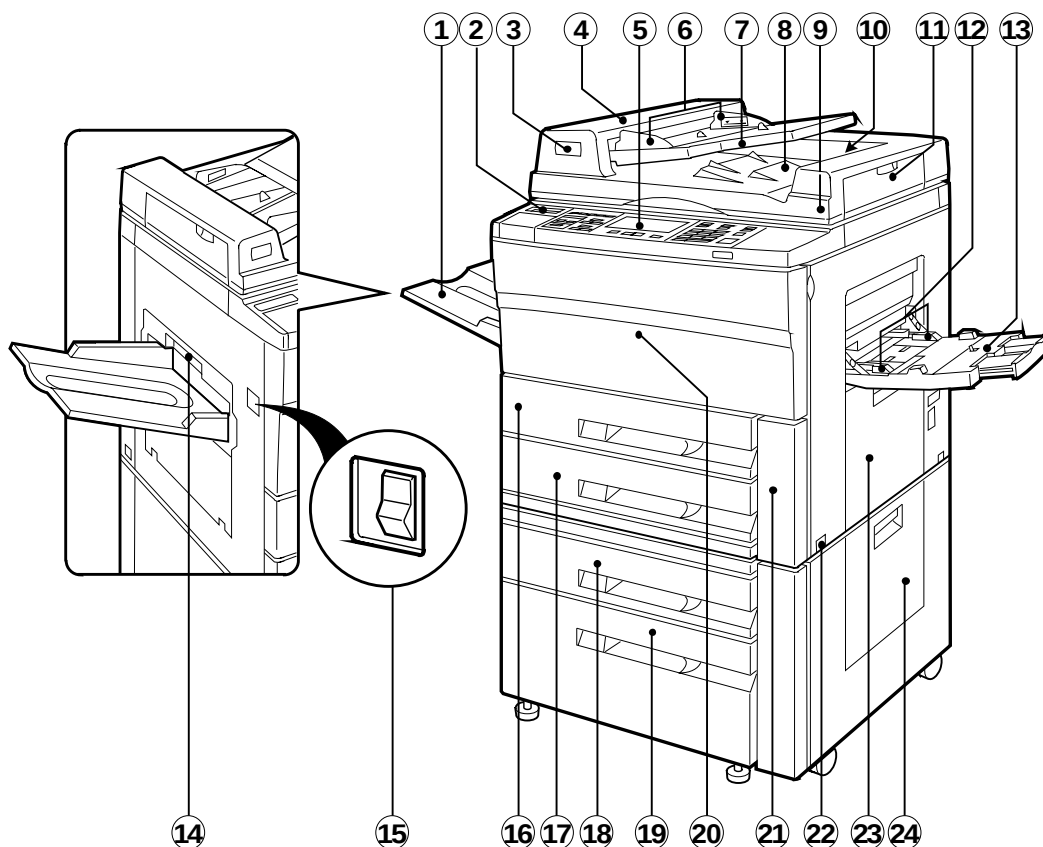
2. SF-S53N



Name	Staple sorter
No. of bins	20 bins
Paper collection	Copy face up
Capacity per bin	Max. 50 sheets (250 sheets: Top bin)
Allowable paper size/weight for collating	Max.: A3, Min.: B5 (Non-sort: Min. A5), Non-sort: 52 ~ 128g/m ² , Sort/staple sort/grouping: 56 ~ 89g/m ²
No. of sheets for stapling	50 sheets (80g/m ²)
Power source	Supplied from the copier.
Dimensions	475mm (W) × 597mm (D) × 995mm (H)
Weight	About 42.1kg

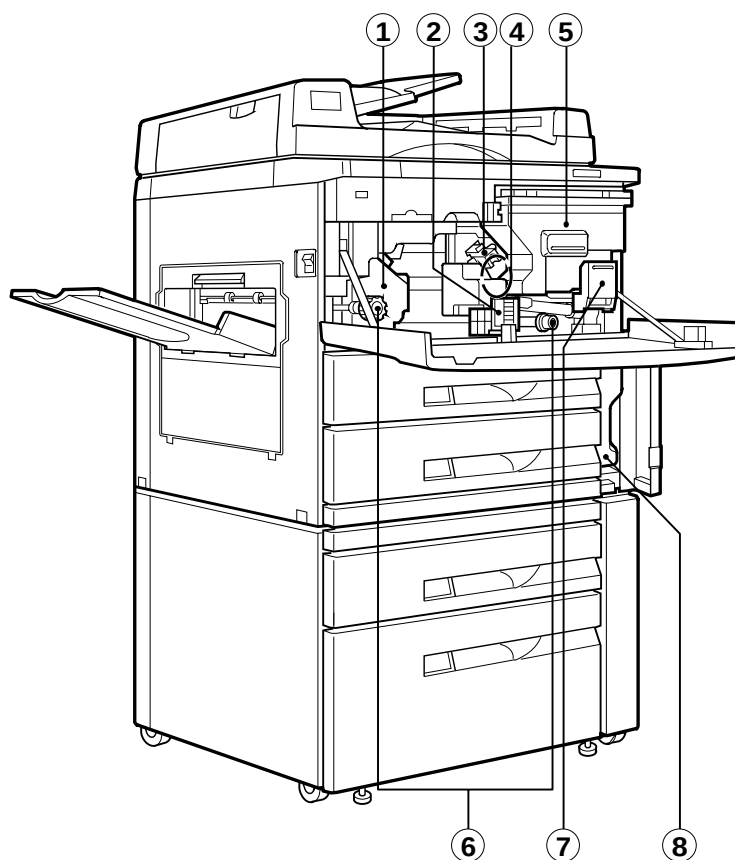
[4] PART NAME AND FUNCTION

1. External view



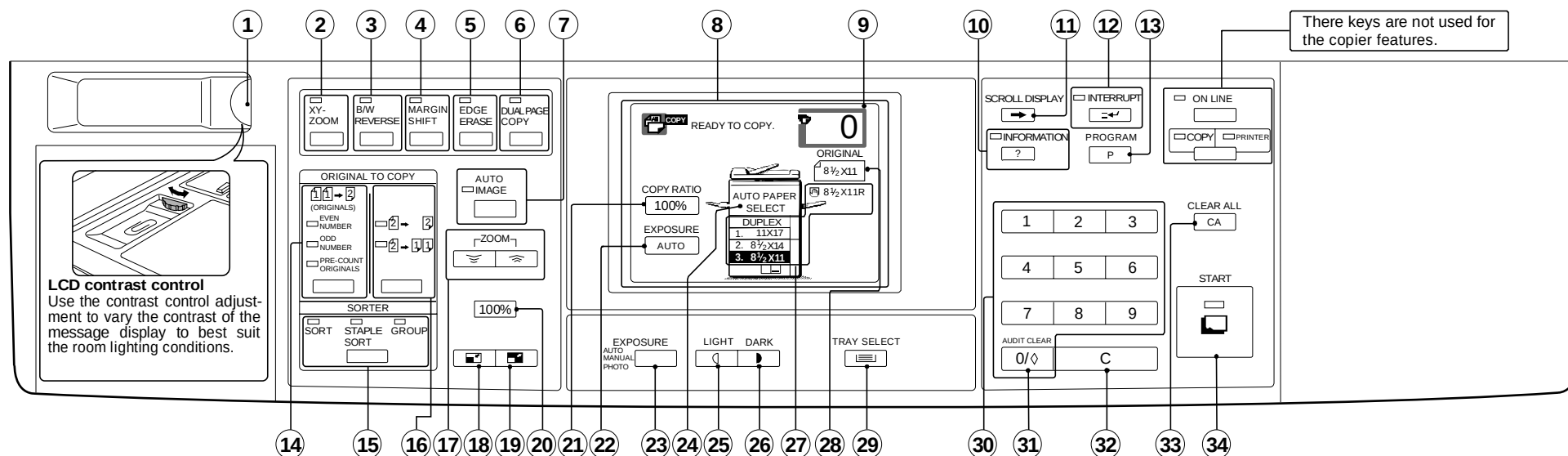
No.	Name	Function
①	Exit tray	Finished copies are deposited in the exit tray.
②	Paper clip tray	Keep paper clip here.
③	Document feeder indicator	Indicate document feeder condition.
④	RADF feeding roller cover	Open to remove misfed documents.
⑤	Operation panel	All copier controls are located here for easy operation.
⑥	Document guides	Adjust to the size of the documents.
⑦	Document feeder tray	Holds up to 50 documents.
⑧	Document feeder cover	Open to make copies from the document glass.
⑨	Document glass	All documents which cannot be copied from the RADF must be copied here.
⑩	RADF exit area	Finished documents are output here.
⑪	RADF exit roller cover	Open to remove misfed documents.
⑫	Manual feed tray paper guides	Adjust to the width of the copy paper.
⑬	Manual feed tray	Special papers (including transparency film) and copy paper can be fed from the manual feed tray.
⑭	Exit area cover	Open to remove misfed paper.
⑮	Power switch	Press to turn copier power on and off.
⑯	Duplex module	The duplex module provides duplex copying capability.
⑰	Paper tray 1	Holds 500 sheets of 20 lb. bond paper. Copy paper size can be changed by changing the inner cassette.
⑱	Paper tray 2	Holds 500 sheets of 20 lb. bond paper.
⑲	Paper tray 3	Holds A4 or letter sized paper. Tray capacity is 3,000 sheets of 20 lb. bond paper.
⑳	Front cover	Open to remove misfeeds and to service the copier.
㉑	Waste toner bottle cover	Open to replace the Waste toner bottle.
㉒	Handles	Pull out to move the copier.
㉓	Upper side cover	Open to remove misfeeds in the paper feed area.
㉔	Lower side cover	Open to remove misfeeds in paper tray 2 and 3.

2. Internal structure



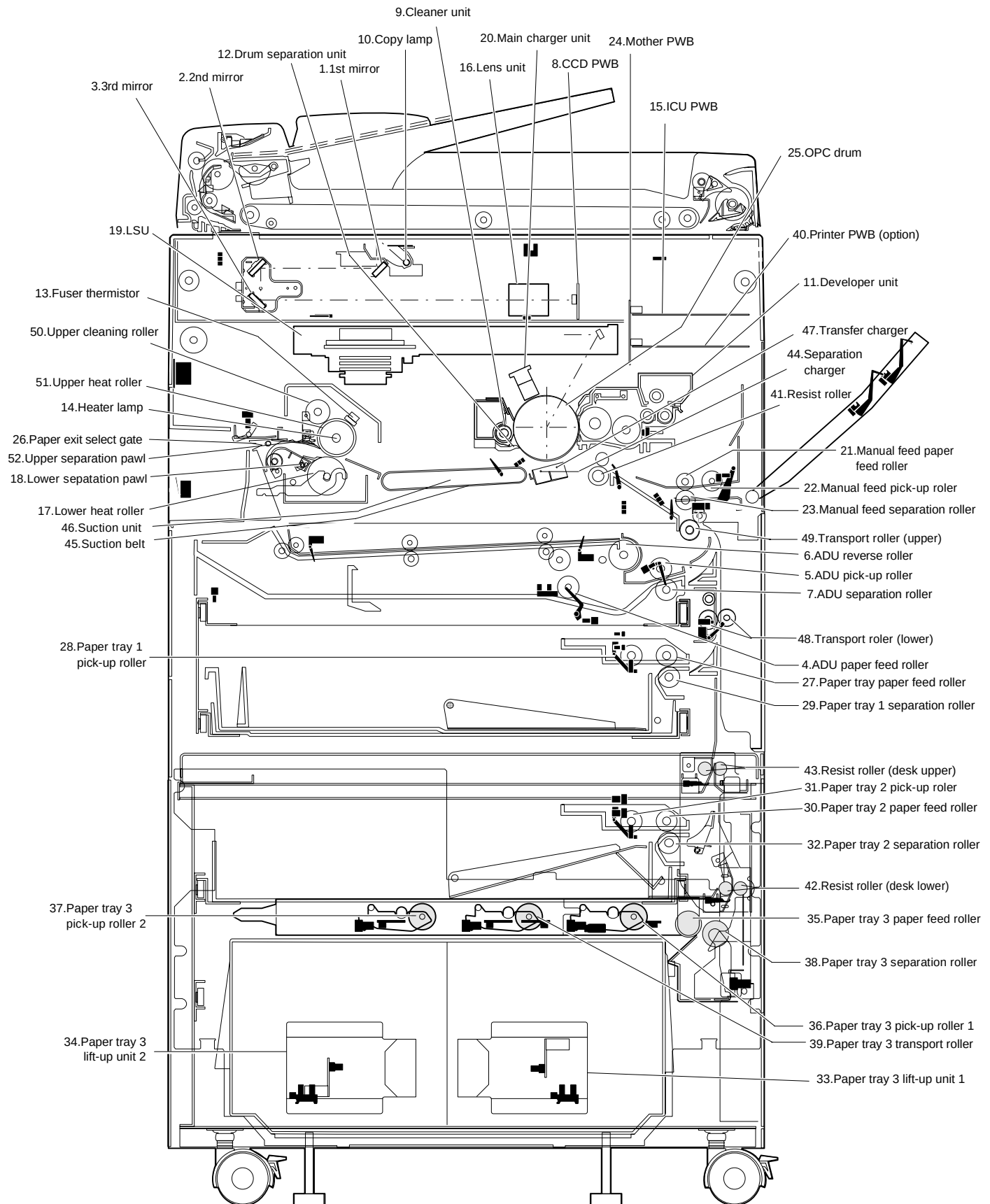
No.	Name	Function
①	Fusing unit	Fuses toner to paper.
②	Transport level	Turn to open the paper transport section.
③	Corona unit	The unit is used to charge the photoconductive drum.
④	Photoconductive drum	Copy images are formed on the photoconductive drum.
⑤	Toner hopper	Contains toner.
⑥	Roller rotating knobs	Turn to remove misfed paper.
⑦	Toner hopper lock lever	Pull down release the toner hopper.
⑧	Waste toner bottle	Waste toner is collected here. Replace when a message appears in the display indicating the need to do so.

3. Operation panel



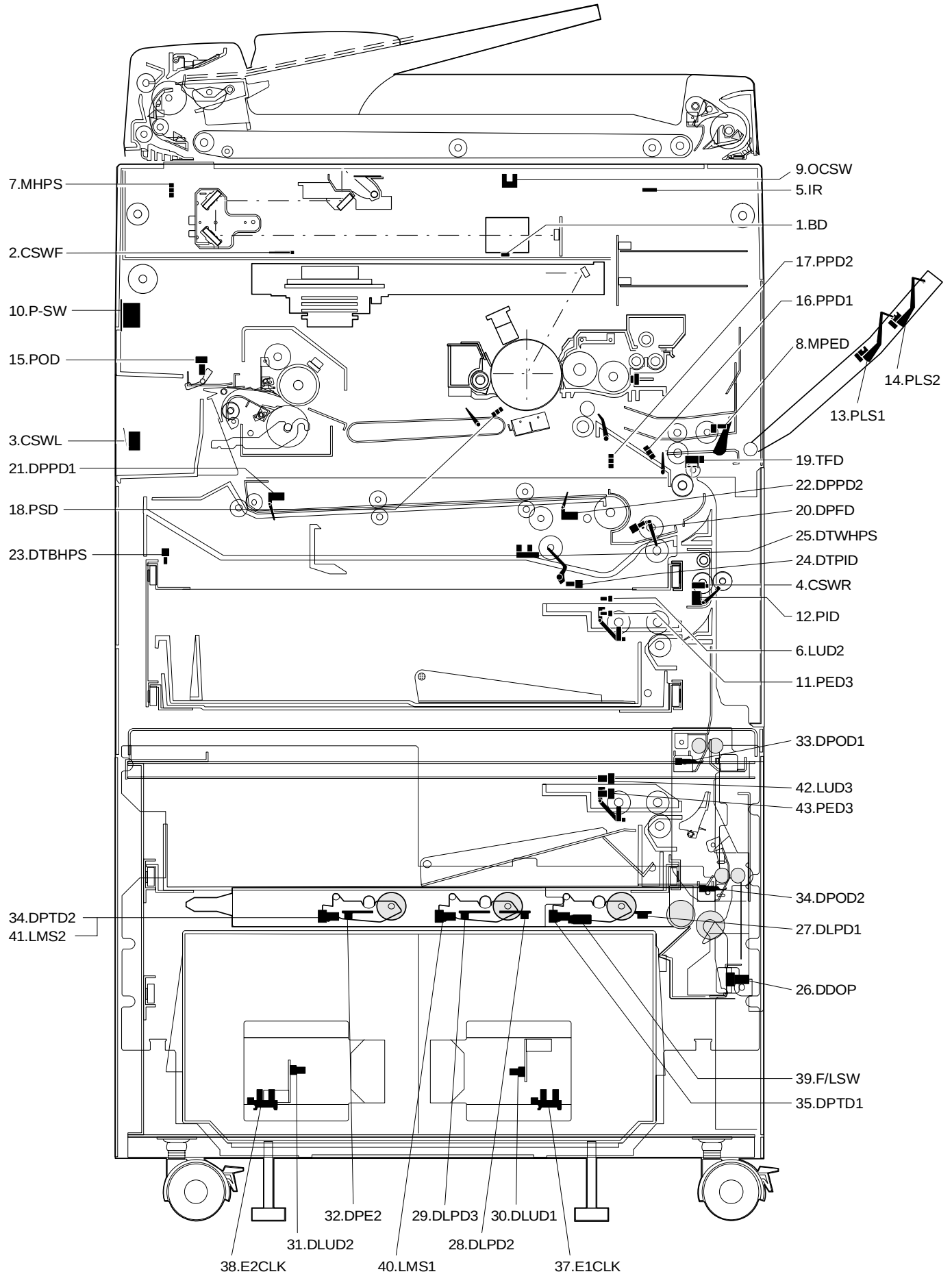
No.	Name	No.	Name	No.	Name
①	LCD contrast volume	⑬	Program	②⑤	Light key
②	XY-zoom	⑭	Original to copy key and indicator	②⑥	Dark key
③	Black white reverse	⑮	Sorter key and indicator	②⑦	Tray and paper size display
④	Margin shift	⑯	Original to copy key and indicator	②⑧	Original size display
⑤	Edge erase	⑰	Zoom key	②⑨	Paper tray select key
⑥	Dual page copy	⑱	Reduction key	③①	Ten key pad
⑦	Auto image	⑲	Enlargement key	③②	Auditor clear key
⑧	LCD display	⑳	100% key	③③	Clear key
⑨	Copy quantity display	㉑	Copy ratio display	③④	Clear all key
⑩	Operation information	㉒	Exposure display		Start key and indicator
⑪	Scroll display	㉓	Exposure key		
⑫	Interrupt key and indicator	㉔	Auto paper select display		

4. Major parts



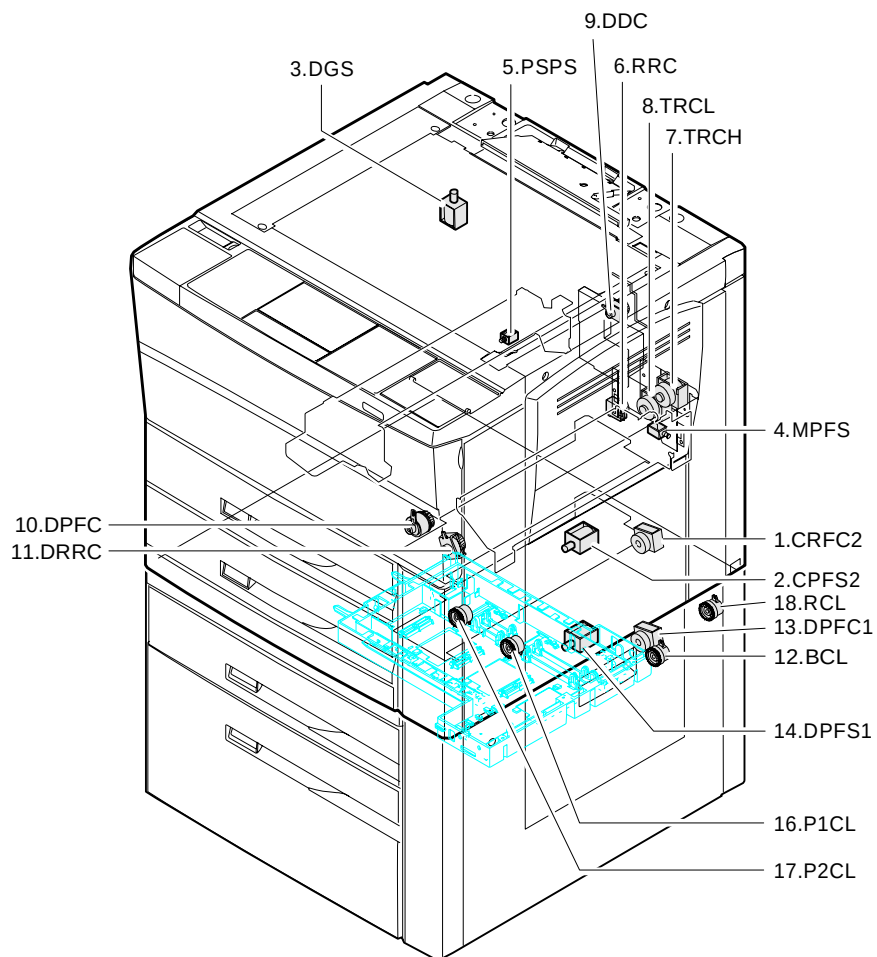
No.	Part name	No.	Part name	No.	Part name
1	1st mirror	19	LSU	37	Paper tray 3 pick-up roller 2
2	2nd mirror	20	Main charger unit	38	Paper tray 3 separation roller
3	3rd mirror	21	Manual feed paper feed roller	39	Paper tray 3 transport roller
4	ADU paper feed roller	22	Manual feed pick-up roller	40	Printer PWB (Option)
5	ADU pick-up roller	23	Manual feed separation roller	41	Resist roller
6	ADU reverse roller	24	Mother PWB	42	Resist roller (desk-lower)
7	ADU separation roller	25	OPC drum	43	Resist roller (desk-upper)
8	CCD PWB	26	Paper exit select gate	44	Separation charger
9	Cleaner unit	27	Paper tray 1 paper feed roller	45	Suction belt
10	Copy lamp	28	Paper tray 1 pick-up roller	46	Suction unit
11	Developer unit	29	Paper tray 1 separation roller	47	Transfer charger
12	Drum separation unit	30	Paper tray 2 paper feed roller	48	Transport roller (lower)
13	Fuser thermistor	31	Paper tray 2 pick-up roller	49	Transport roller (upper)
14	Heater lamp	32	Paper tray 2 separation roller	50	Upper cleaning roller
15	ICU PWB	33	Paper tray 3 lift-up unit 1	51	Upper heat roller
16	Lens unit	34	Paper tray 3 lift-up unit 2	52	Upper separation pawl
17	Lower heat roller	35	Paper tray 3 paper feed roller	53	
18	Lower separation pawl	36	Paper tray 3 pick-up roller 1	54	

5. Sensor



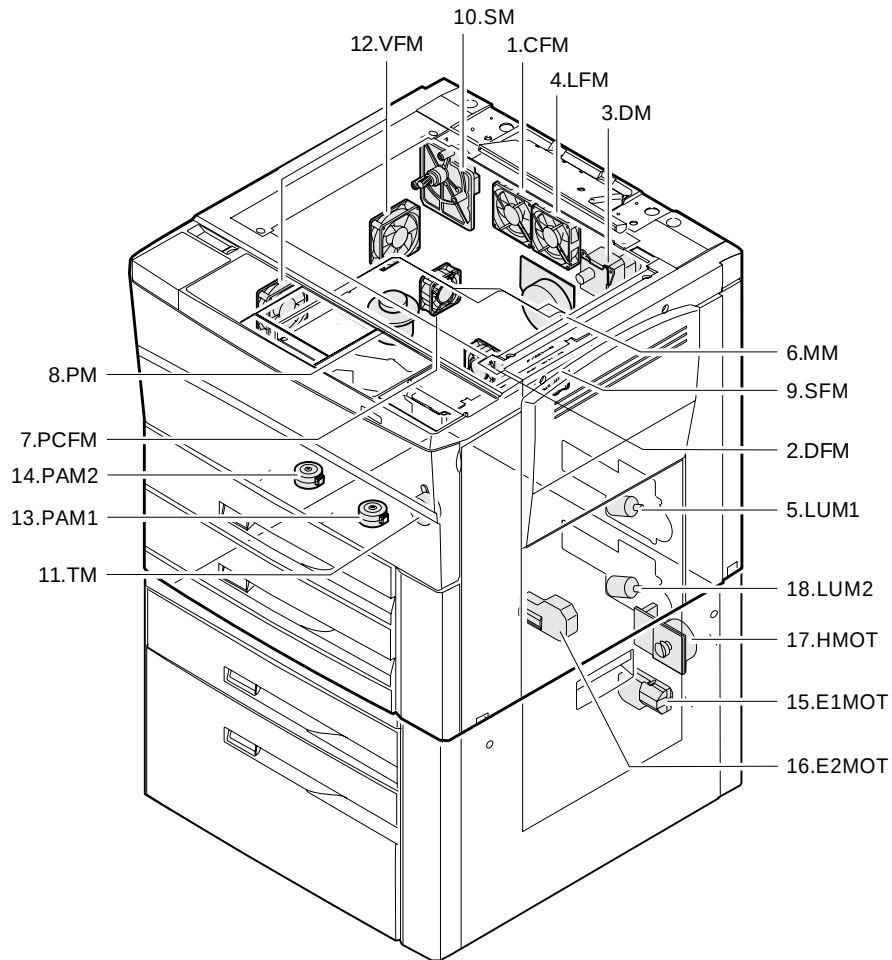
No	Section	Name		Function	Contact / output
1	Main body	BD	Laser beam sensor	Detection of laser beam start position	
2		CSWF	Door switch Front	Front door open / close detection	ON when closed
3		CSWL	Door switch L	Left door open / close detection	ON when closed
4		CSWR	Door switch R	Right door open / close detection	ON when closed
5		IR	Optical communication light-receiving sensor	Optical communication module for PDA/ZR	
6		LUD2	Paper tray 1 lift-up sensor	Detection of paper tray 1 lift-up upper limit	Low when lift plate detected
7		MHPS	Mirror home position sensor	Detection of mirror unit home position	High at home position
8		MPED	Manual feed tray paper empty detector	Detection of paper in manual feed tray	Low when paper is detected
9		OCSW	OC switch	Detection of OC cover operation	Low when cover is open
10		P-SW	Main Power switch	Main power ON / OFF	
11		PED3	Paper tray 1 paper empty sensor	Detection of paper in paper tray 1	Low when paper is detected
12		PID	Paper in sensor	Detection of paper in cassette	High when paper pass over
13		PLS1	Manual feed tray paper length sensor 1	Manual feed tray paper length sensor 1	Low when detected
14		PLS2	Manual feed tray paper length sensor 2	Manual feed tray paper length sensor 2	Low when detected
15		POD	Paper exit sensor	Detection of paper exit from fusing section	Low when paper pass over
16		PPD1	Paper pass detector 1	Paper transport detection 1	Low when paper pass over
17		PPD2	Paper pass detector 2	Paper transport detection 2	Low when paper pass over
18		PSD	Paper separation detector	Detection of paper separation on the OPC drum	Low when paper pass over
19		TFD	Waste toner sensor	Waste toner bottle full detection	Low when full waste toner detected
20	ADU	DPFD	ADU paper exit detector	Detecton of paper exit from ADU	High when paper pass over
21		DPPD1	ADU Paper feed sensor 1	Detection of Paper feed in ADU position 1	High when paper pass over
22		DPPD2	ADU Paper feed sensor 2	Detection of Paper feed in ADU position 2	High when paper pass over
23		DTBHPS	ADU rear plate home position sensor	Detection of ADU rear plate home position	Low at home position
24		DTPID	ADU Tray sensor	Detection of paper in ADU	High when paper is detected
25		DTWHPS	ADU alignment plate home position sensor	Detection of ADU alignment plate home position	Low at home position
26	Desk unit	DDOP	Desk side open/close sensor	Desk side door open / close detection	Low when desk side door is open
27		DLPD1	Desk paper pass sensor 0	Paper transport detection 0	High when paper pass over
28		DLPD2	Paper tray 3 paper pass sensor 1	Paper transport detection 1	High when paper pass over
29		DLPD3	Paper tray 3 paper pass sensor 2	Paper transport detection 2	High when paper pass over
30		DLUD1	Paper tray 3 lift-up sensor 1	Detection of paper tray 3 lift-up upper limit	High when interrupted
31		DLUD2	Paper tray 3 lift-up sensor 2	Detection of paper tray 3 lift-up upper limit	High when interrupted
32		DPE2	Paper tray 3 paper empty sensor	Detection of paper in paper tray 3	High when paper is detected
33		DPOD1	Desk unit resist sensor 1	Paper pass detection 1	Low when paper is detected
34		DPOD2	Desk unit resist sensor 2	Paper pass detection 2	Low when paper is detected
35		DPTD1	Paper tray 3 paper quantity sensor 1	Detection of paper quantity in paper tray 3	
36		DPTD2	Paper tray 3 paper quantity sensor 2	Detection of paper quantity in paper tray 3	
37		E1CLK	Paper tray 3 lift-up motor 1 encoder clock detector	Lift-up motor encoder clock detection	Pulse output
38		E2CLK	Paper tray 3 lift-up motor 2 encoder clock detector	Lift-up motor encoder clock detection	Pulse output
39		F/LSW	Front loading open/close switch	Paper tray 3 open / close detection	High when open
40		LMS1	Limit sensor 1	Prevention against excessive height of cassette paper.	High when interrupted
41		LMS2	Limit sensor 2	Prevention against excessive height of cassette paper.	High when interrupted
42		LUD3	Paper tray 2 lift-up sensor	Detection of paper tray 2 lift-up upper limit	Low when lift plate detected
43		PED3	Paper tray 2 paper empty sensor	Detection of paper in paper tray 2	Low when paper is detected

6. Clutches and solenoid



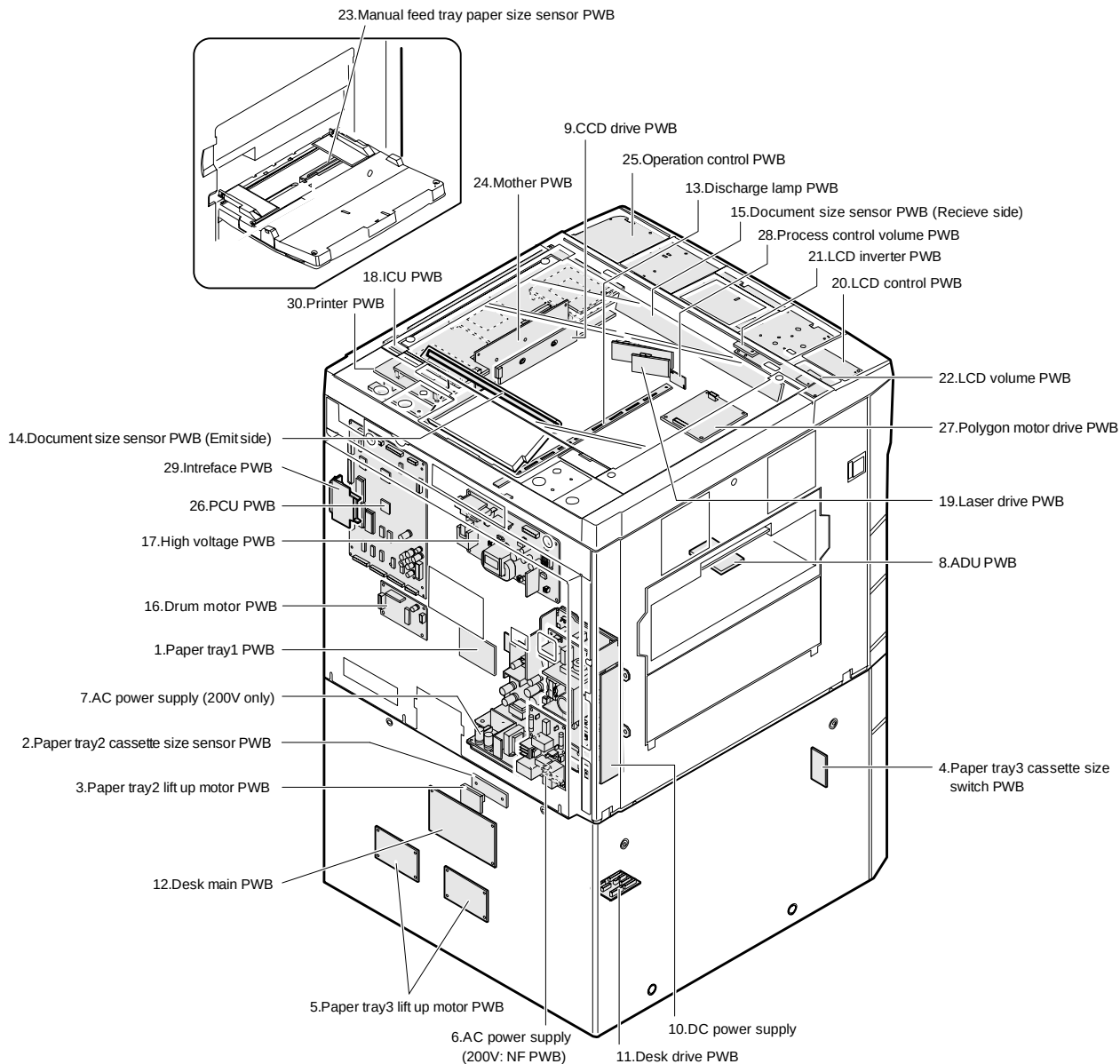
No.	Section	Name		Function	Type
1	Main body	CPFC2	Paper tray 1 pick-up clutch	Paper tray 1 pickup roller rotation	Electromagnetic clutch
2		CPFS2	Paper tray 1 pick-up solenoid	Paper tray 1 pickup roller pressing	Electromagnetic solenoid
3		DGS	Duplex gate solenoid	Duplex gate rotation drive	Electromagnetic solenoid
4		MPFS	Manual feed tray pick-up solenoid	Manual feed roller pressing	Electromagnetic solenoid
5		PSPS	Paper separate solenoid	Separation roller pressing	Electromagnetic solenoid
6		RRC	Resist roller clutch	Resist roller rotation	Electromagnetic clutch
7		TRCH	Paper transport roller clutch (High speed)	Paper transport roller rotation (High speed)	Electromagnetic clutch
8		TRCL	Paper transport roller clutch (Low speed)	Paper transport roller rotation (Low speed)	Electromagnetic clutch
9	ADU	DDC	ADU drive clutch	ADU drive	Electromagnetic clutch
10		DPFC	ADU paper feed clutch	ADU paper feed roller rotation	Electromagnetic clutch
11		DRRC	ADU counter roller clutch	ADU counter roller rotation	Electromagnetic clutch
12	Desk unit	BCL	Paper tray 3 separation clutch	Paper tray 3 separation roller rotation	Electromagnetic clutch
13		DPFC1	Paper tray 2 pick-up clutch	Paper tray 2 pickup roller rotation	Electromagnetic solenoid
14		DPFS1	Paper tray 2 pick-up solenoid	Paper tray 2 pickup roller pressing	Electromagnetic solenoid
16		P1CL	Paper tray 3 pick-up roller 1 clutch	Paper tray 3 pickup roller 1 rotation	Electromagnetic clutch
17		P2CL	Paper tray 3 pick-up roller 2 clutch	Paper tray 3 pickup roller 2 rotation	Electromagnetic clutch
18		RCL	Paper tray 3 resist roller clutch	Paper tray 3 resist roller rotation	Electromagnetic clutch

7. Motor



No.	Section	Name		Function	Type
1	Main body	CFM	Cooling fan motor	Optical system cooling	DC brushless motor
2		DFM	Power supply motor	Power supply cooling	DC brushless motor
3		DM	Drum motor	OPC drum, developing section drive	DC brushless motor
4		LFM	Process cooling fan motor	Process control section cooling	DC brushless motor
5		LUM1	Paper tray 1 lift-up motor	Paper tray 1 lift-up	DC motor
6		MM	Main motor	Paper feed, transport section drive	DC brushless motor
7		PCFM	Polygon cooling fan motor	Polygon motor cooling	DC brushless motor
8		PM	Polygon motor	Polygon mirror drive	DC brushless motor
9		SFM	Suction fan motor	Suction unit cooling	DC brushless motor
10		SM	Mirror motor	Scanner unit drive	DC brushless motor
11		TM	Toner motor	Toner supply	DC brushless motor
12		VFM	Ventilation fan motor	Ozone discharge	DC brushless motor
13	ADU	PAM1	ADU alignment plate motor	ADU alignment plate drive	DC stepping motor
14		PAM2	ADU rear plate motor	ADU rear plate drive	DC stepping motor
15	Desk unit	E1MOT	Paper tray 3 lift-up motor 1	Paper tray 3 lift-up	DC motor
16		E2MOT	Paper tray 3 lift-up motor 2	Paper tray 3 lift-up	DC motor
17		HMOT	Paper tray 3 transport motor	Paper tray 3 paper transport	DC brushless motor
18		LUM2	Paper tray 2 lift-up motor	Paper tray 2 lift-up	DC motor

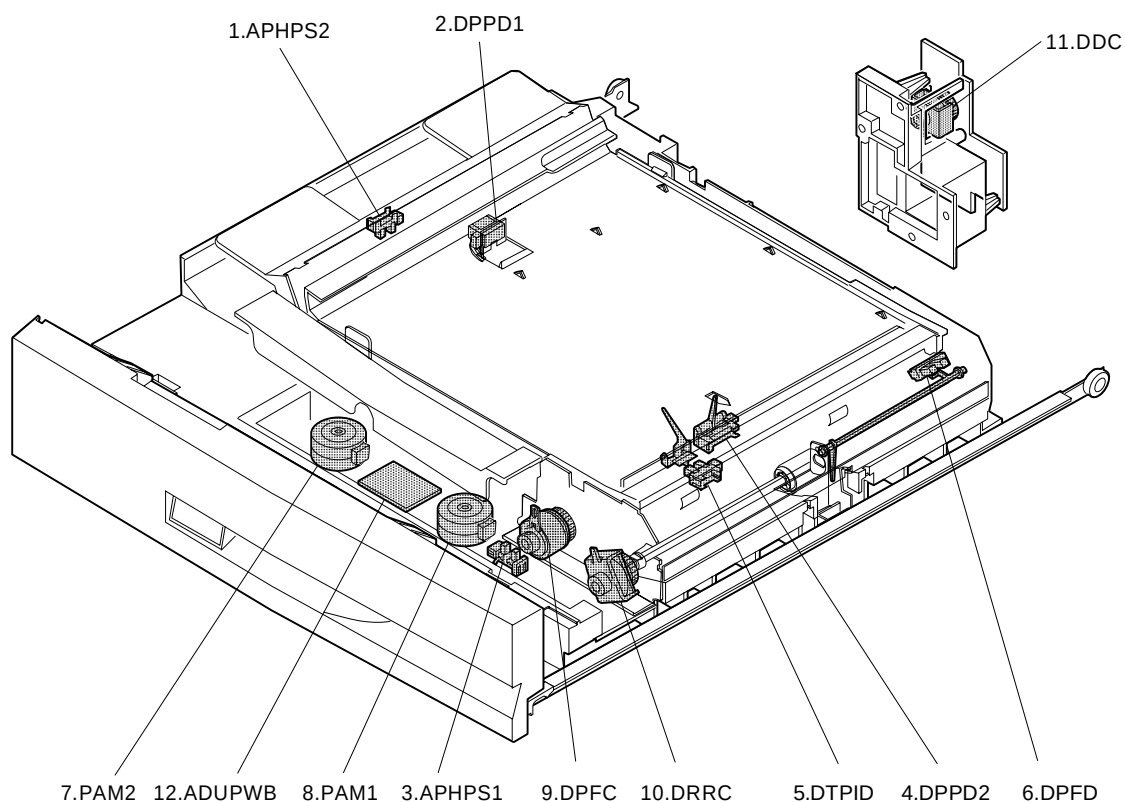
8. PWB unit



No.	Name	Function	
1	Paper tray 1 PWB	Paper tray 1 paper size detection/Lift up motor drive	
2	Paper tray 2 cassette size sensor PWB	Paper tray 2 paper size detection	
3	Paper tray 2 lift up motor PWB	Lift up motor drive	
4	Paper tray 3 cassette size switch PWB	Paper tray 3 paper size setting	
5	Paper tray 3 lift up motor PWB	Lift up motor drive	
6	AC power supply (200V: NF PWB)	AC voltage supply (200V: Noise filter)	
7	AC power supply (200V only)	AC voltage supply (200V only)	
8	ADU PWB	Duplex unit drive	
9	CCD drive PWB	CCD drive	
10	DC power supply	DC voltage supply	
11	Desk drive PWB	Desk unit wiring interface	
12	Desk main PWB	Desk unit drive	
13	Discharge lamp PWB	Discharge lamp drive	
14	Document size sensor PWB (Emit side)	Document size detection (Light emitting side)	
15	Document size sensor PWB (Receive side)	Document size detection (Light receiving side)	
16	Drum motor PWB	Drum motor drive	
17	High voltage PWB	High voltage supply	

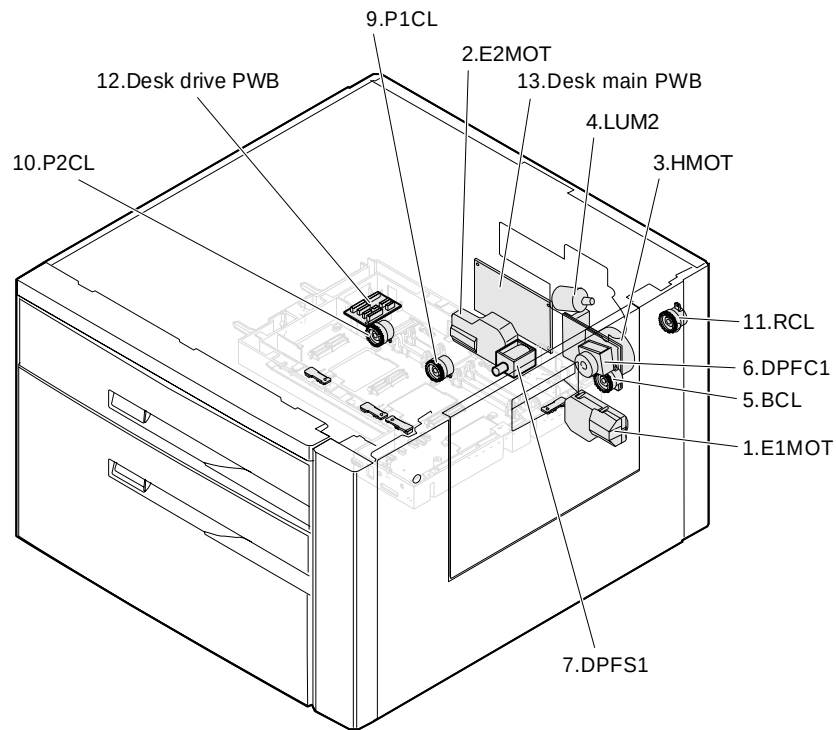
No.	Name	Function	
18	ICU PWB	Image process control	
19	Laser drive PWB	Laser beam drive	
20	LCD control PWB	LCD display control	
21	LCD inverter PWB	LCD backlight lighting	
22	LCD volume PWB	LCD display density control	
23	Manual feed tray paper size sensor PWB	Manual feed tray paper size detection	
24	Mother PWB	ICU PWB, printer PWB interface	
25	Operation control PWB	Operation panel control	
26	PCU PWB	Process control	
27	Polygon motor drive PWB	Polygon motor drive	
28	Process control volume PWB	Bias voltage adjustment	
29	Interface PWB	Interface when connected with a personal computer	Option
30	Printer PWB	Used when the machine is used as a printer of the connected computer.	Option

9. Duplex copy tray



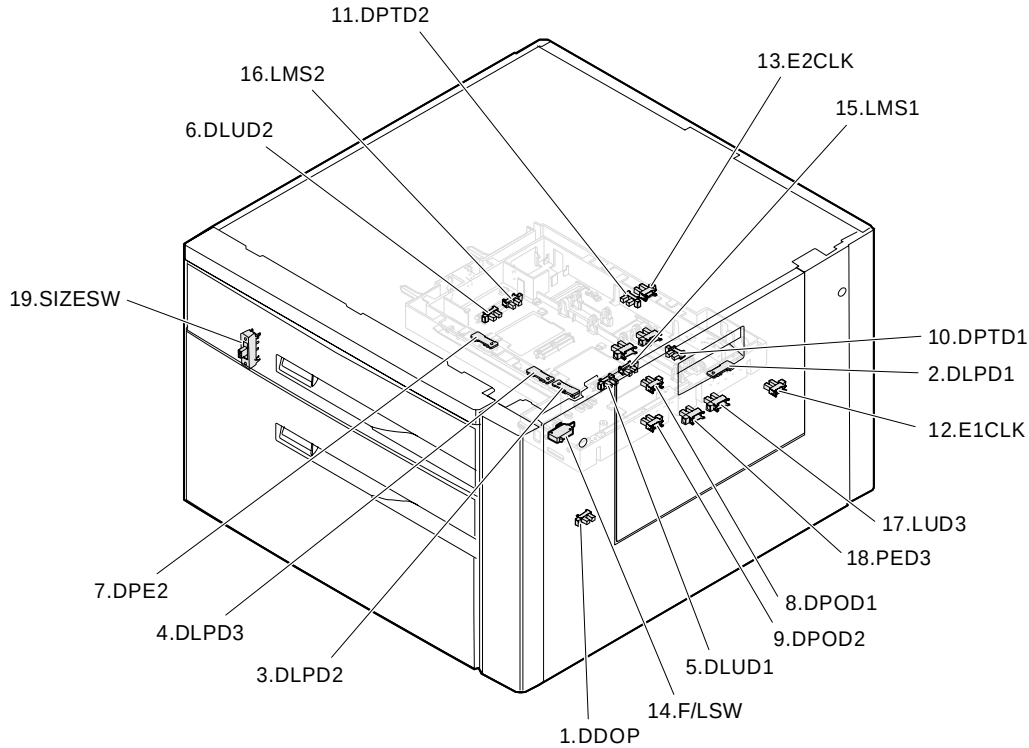
	Signal name	Name	Output/Function	Type
1	APHPS2	ADU rear plate home position sensor	Low when at home position	Transmissive photosensor
2	DPPD1	ADU paper transport sensor-1	High when paper passes over	Transmissive photosensor
3	APHPS1	ADU alignment plate home position sensor	Low when over home position	Transmissive photosensor
4	DPPD2	ADU paper transport sensor-2	High when paper detected	Transmissive photosensor
5	DTPID	ADU tray sensor	High when paper detected	Transmissive photosensor
6	DPFD	ADU paper entry sensor	High when paper detected	Transmissive photosensor
7	PAM2	ADU rear plate motor	ADU rear plate drive	DC stepping motor
8	PAM1	ADU alignment plate motor	ADU alignment plate drive	DC stepping motor
9	DPFC	ADU paper feed clutch	ADU paper feed roller rotation	Electromagnetic clutch
10	DRRC	ADU counter roller clutch	ADU counter roller rotation	Electromagnetic clutch
11	DDC	ADU drive clutch	ADU drive	Electromagnetic clutch
12	ADUPWB	Diode PWB	Duplex copy tray load driving	

10. Desk unit (Major parts)



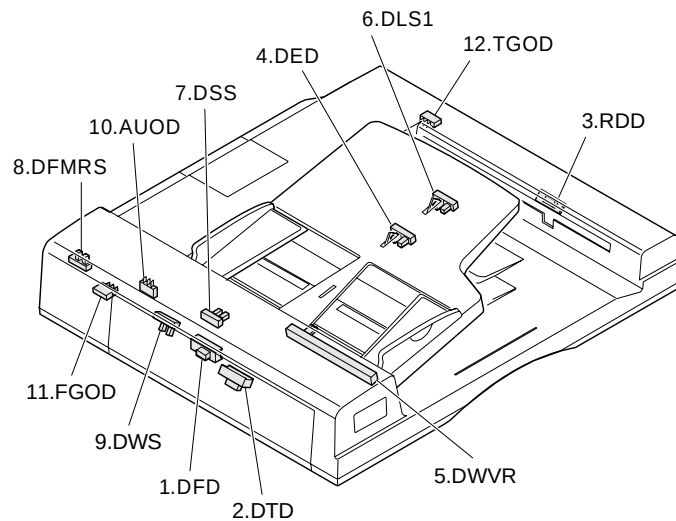
No.	Section	Name		Function	Type
1	Motor	E1MOT	Paper tray 3 lift-up motor 1	Paper tray 3 lift-up	DC motor
2		E2MOT	Paper tray 3 lift-up motor 2	Paper tray 3 lift-up	DC motor
3		HMOT	Paper tray 3 transport motor	Paper tray 3 paper transport	DC brushless motor
4		LUM2	Paper tray 2 lift-up motor	Paper tray 2 lift-up	DC motor
5	Clutch solenoid	BCL	Paper tray 3 separation clutch	Paper tray 3 separation roller rotation	Electromagnetic clutch
6		DPFC1	Paper tray 2 pick-up clutch	Paper tray 2 pick-up roller rotation	Electromagnetic solenoid
7		DPFS1	Paper tray 2 pick-up solenoid	Paper tray 2 pick-up roller pressing	Electromagnetic solenoid
9		P1CL	Paper tray 3 pick-up roller 1 clutch	Paper tray 3 pick-up roller 1 clutch	Electromagnetic clutch
10		P2CL	Paper tray 3 pick-up roller 2 clutch	Paper tray 3 pick-up roller 2 clutch	Electromagnetic clutch
11		RCL	Paper tray 3 resist clutch	Paper tray 3 resist clutch	Electromagnetic clutch
12	PWB	Desk drive PWB		Desk unit wiring interface	
13		Desk main PWB		Desk unit main control	

11. Desk unit (Sensor)



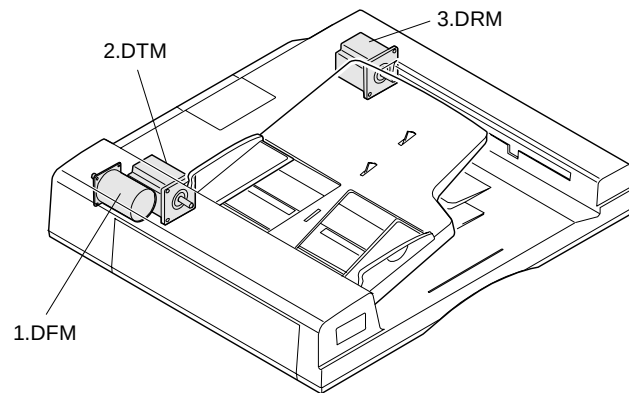
No.	Section	Name		Function	Type	Contact/output
1	Desk unit	DDOP	Desk side open/close sensor	Desk side door open/close	Photo interrupter	Low when desk side door is open
2		DLPD1	Desk paper pass sensor 0	Paper transport detection 0	Reflection type sensor	High when paper pass over
3		DLPD2	Paper tray 3 paper pass sensor 1	Paper transport detection 1	Reflection type sensor	High when paper pass over
4		DLPD3	Paper tray 3 paper pass sensor 2	Paper transport detection 2	Reflection type sensor	High when paper pass over
5		DLUD1	Paper tray 3 lift-up sensor 1	Paper tray 3 lift-up upper limit detection	Photo interrupter	High when interrupted
6		DLUD2	Paper tray 3 lift-up sensor 2	Paper tray 3 lift-up upper limit detection	Photo interrupter	High when interrupted
7		DPE2	Paper tray 3 paper empty sensor	Paper tray 3 paper empty detection	Reflection type sensor	High when paper is detected
8		DPOD1	Desk unit resist sensor 1	Paper pass detection 1	Photo interrupter	Low when paper is detected
9		DPOD2	Desk unit resist sensor 2	Paper pass detection 2	Photo interrupter	Low when paper is detected
10		DPTD1	Paper tray 3 paper quantity sensor 1	Paper tray 3 paper quantity detection	Photo interrupter	
11		DPTD2	Paper tray 3 paper quantity sensor 2	Paper tray 3 paper quantity detection	Photo interrupter	
12		E1CLK	Paper tray 3 lift-up motor 1 encoder clock detector	Lift-up motor encoder clock detection	Photo interrupter	Pulse output
13		E2CLK	Paper tray 3 lift-up motor 2 encoder clock detector	Lift-up motor encoder clock detection	Photo interrupter	Pulse output
14		F/LSW	Front loading open/close switch	Paper tray 3 open/close detection	Photo interrupter	High when open
15		LMS1	Limit sensor 1	Prevention against excessive height of cassette paper	Photo interrupter	High when interrupted
16		LMS2	Limit sensor 2	Prevention against excessive height of cassette paper	Photo interrupter	High when interrupted
17		LUD3	Paper tray 2 lift-up sensor	Paper tray 2 lift-up upper limit detection	Photo interrupter	Low when lift plate detected
18		PED3	Paper tray 2 paper empty sensor	Paper tray 2 paper empty detection	Photo interrupter	Low when paper is detected
19		SIZESW	Paper tray 3 paper size switch	Paper tray 3 paper size setting	Slide switch	

12. RADF (Sensor)



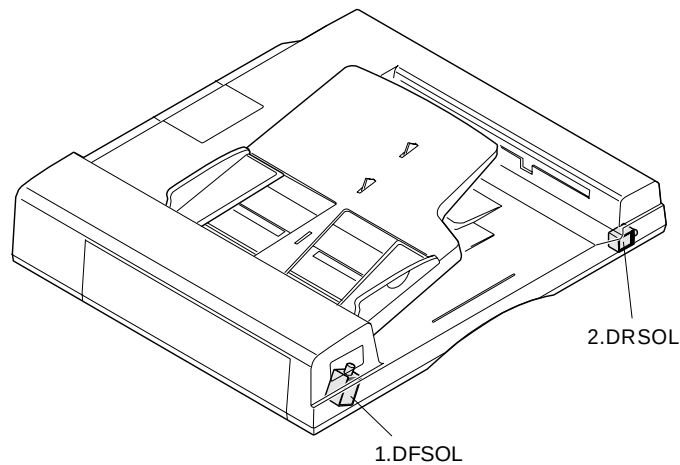
No.	Name		Type	Function, operation	Contact point, output
1	DFD	Document feed sensor	Reflection sensor	Becomes H level when the leading edge of document reaches the resist roller.	H level when document is detected.
2	DTD	Document timing sensor	Reflection sensor	Becomes H level when the leading edge of document reaches near the transport belt.	H level when document is detected.
3	RDD	Reversion sensor	Reflection sensor	Becomes H level when the leading edge of document is transported to reversion/paper exit path.	H level when document is detected.
4	DED	Document end sensor	Photo interrupter	Detection of last paper in tray	H level when document is detected.
5	DWVR	Document width knob	Slide knob	Detection of document width on tray (judged by resistance value)	H level when document is detected.
6	DLS1	Document length sensor 1	Photo interrupter	Detection of document length on tray	H level when document is detected.
7	DSS	Document setting sensor	Photo interrupter	Detection of document set on tray	H level when document is detected.
8	DFMRS	Paper feed motor rotation sensor	Photo interrupter	Detection of paper feed motor speed	Pulse output
9	DWS	Document width sensor	Photo interrupter	Detection of document width	L level when document is detected.
10	AUOD	ADF open/close switch	Microswitch	Detection of ADF unit operation	L level when closed
11	FGOD	Paper feed guide switch	Microswitch	Detection of paper feed guide operation	L level when closed.
12	TGOD	Reflection guide switch	Microswitch	Detection of reversion cover operation	L level when closed.

13. RADF (Motor)



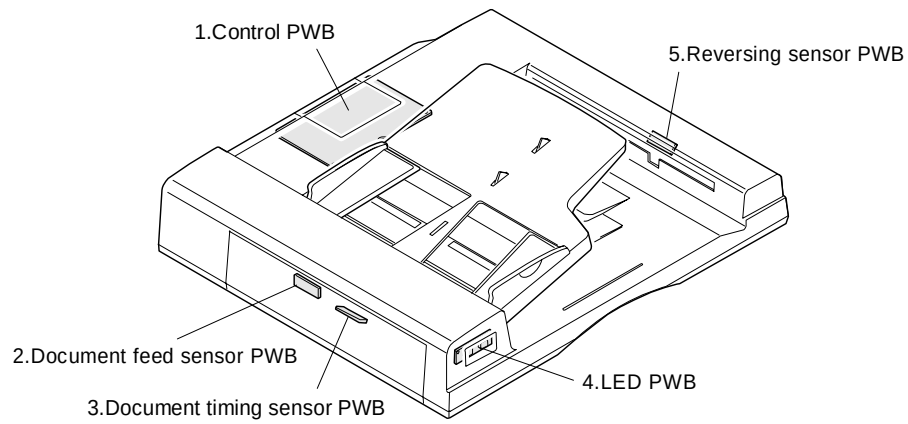
No.	Name		Function, operation	Type
1	DFM	Paper feed motor	Driving of pick-up roller, separation roller, and resist roller	DC motor
2	DTM	Transport motor	Driving of transport belt roller	Stepping motor
3	DRM	Reversion motor	Driving of reversion roller and paper exit roller	Stepping motor

14. RADF (Clutches and solenoid)



No.	Name		Type	Function, operation	Contact point, output
1	DFSOL	Paper feed solenoid	DC solenoid	Presses paper feed weight plate against document to operate the shutter.	Weight plate and shutter go down when turned ON.
2	DRSOL	Reversing solenoid	DC solenoid	Selects between paper exit and reversion paths by driving reversing flapper.	Reversion path is selected when turned ON.

15. RADF (PWB)



No.	Name	Function
1	Control PWB	RADF control
2	Document feed sensor PWB	Detection of document feed
3	Document timing sensor PWB	Detection of document transport timing
4	LED PWB	LED lighting
5	Reversing sensor PWB	Detection of document reversing

[5] UNPACKING AND INSTALLATION

1. Use environment

To ensure safety and proper machine performance, please note the following before initial installation and whenever the machine is to be relocated.

- (1) The copier should be installed near an accessible power outlet for easy connection.



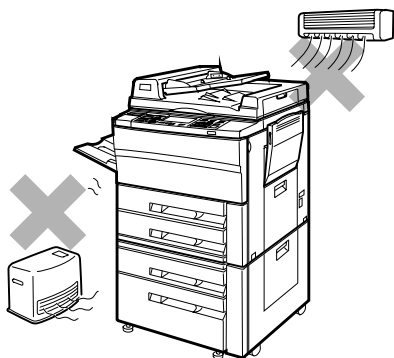
- (2) Be sure to connect the power cord only to a power outlet that meets the specified voltage and current requirements.

Also make certain the outlet is properly grounded.

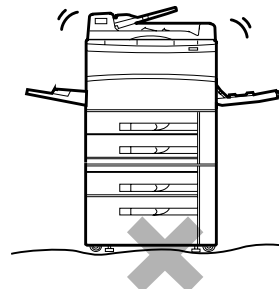
The outlet must be kept apart from appliances that consume much power, such as large motors.

- (3) Do not install the machine where it is:

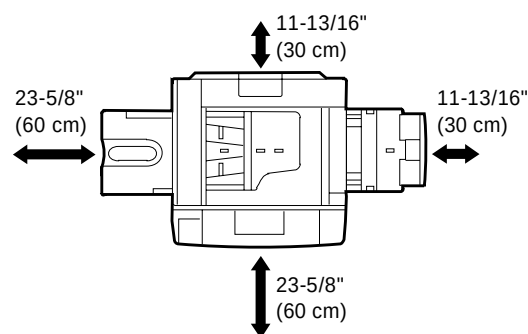
- damp or humid,
- exposed to direct sunlight,
- extremely dusty,
- poorly ventilated,
- subject to extreme temperature or humidity changes (e.g., near an air conditioner or heater).



- (4) Ensure that the area chosen for the machine location is level.



- (5) Be sure to allow the required space around the machine for servicing and proper ventilation.



A small amount of ozone is produced within the copier during operation.

The emission level is insufficient to cause any health hazard.

NOTE:

The present recommended long term exposure limit for ozone is 0.1 ppm (0.2 mg/m³) calculated as an 8 hr. time-weighted average concentration.

However, since the small amount that is emitted may have an objectionable odor, it is advisable to place the copier in a ventilated area.

2. Unpacking

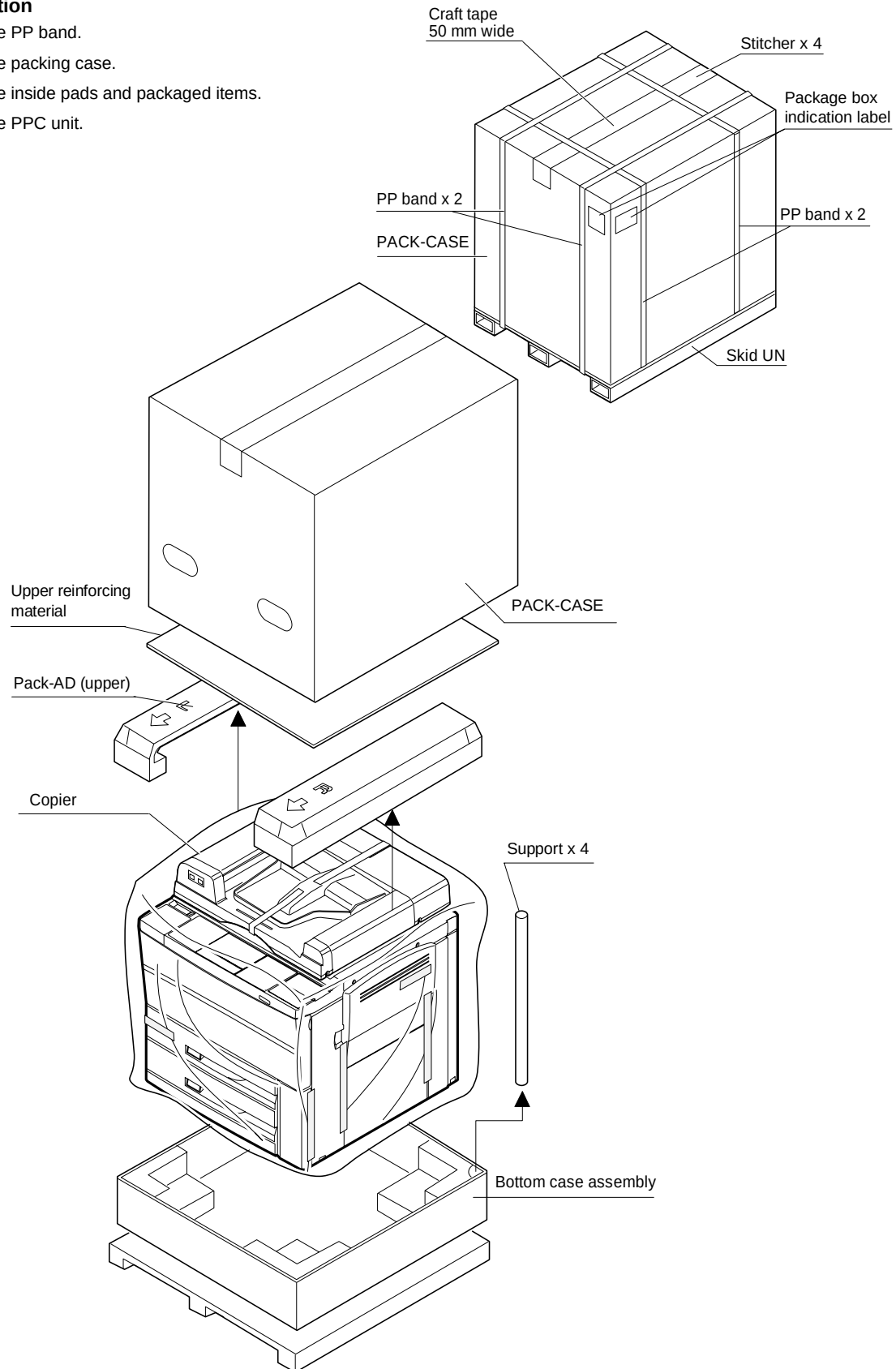
(1) Package form drawing

The PPC unit and the desk unit are separately packaged.

Unpack the package in the following manner:

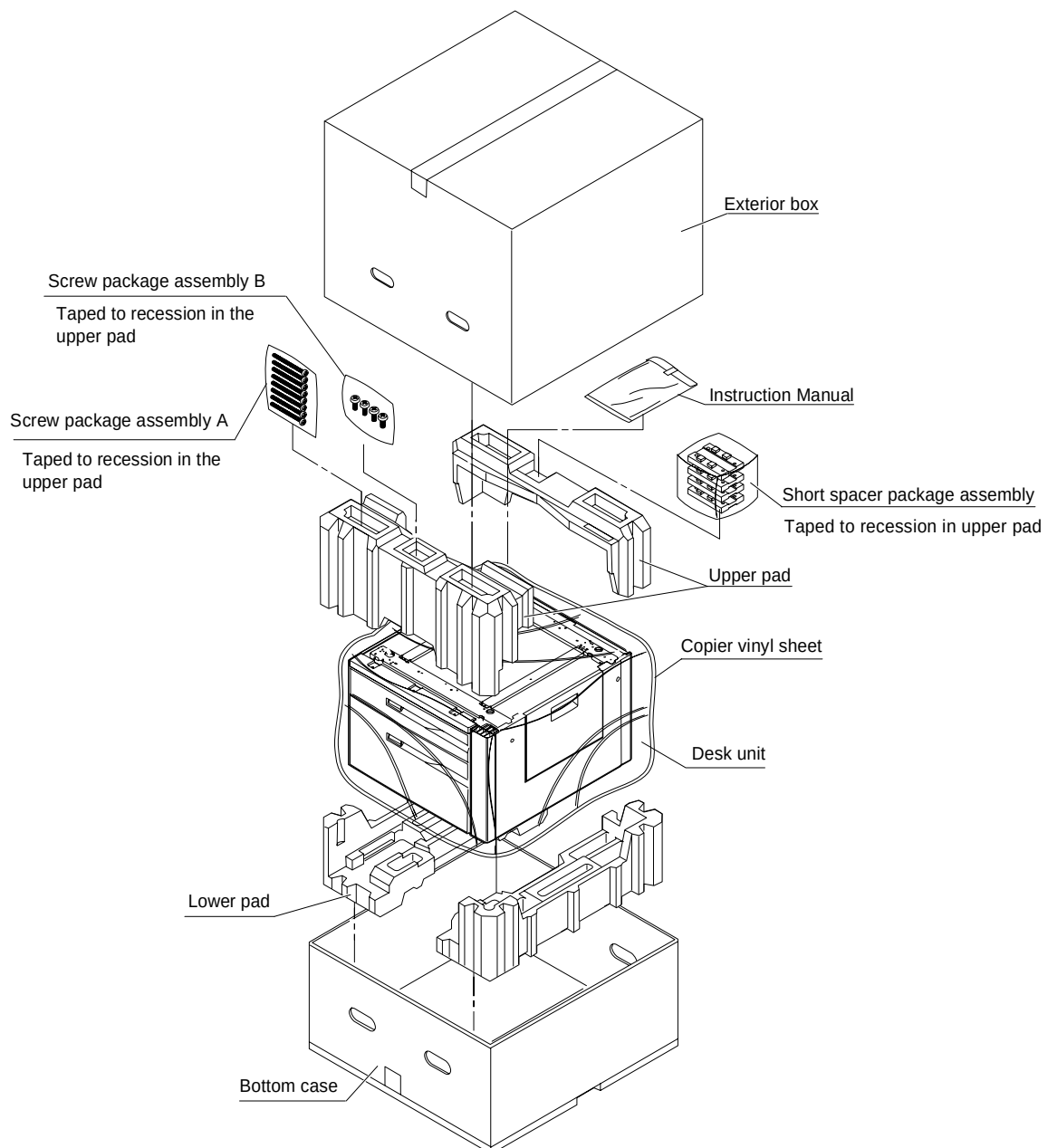
A. PPC section

- Remove the PP band.
- Remove the packing case.
- Remove the inside pads and packaged items.
- Remove the PPC unit.



B. Desk unit

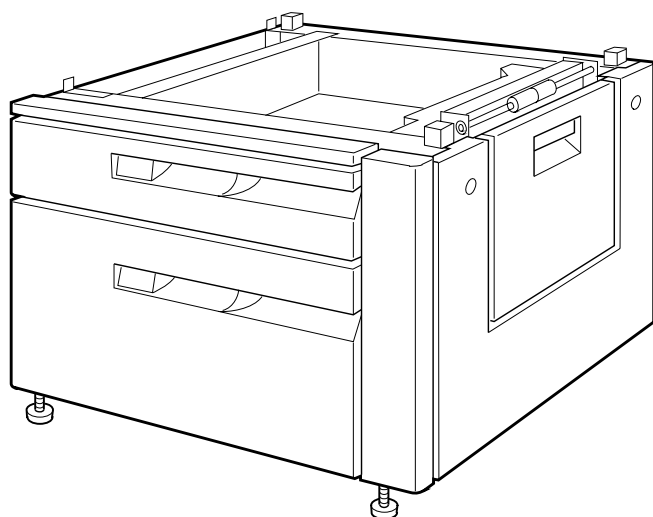
- a. Cut the PP band.
- b. Open the exterior box.
- c. Remove the packaged items:
 - 1) Remove the short spacer package assembly
 - 2) Remove the screw package assembly A.
 - 3) Remove the screw package assembly B.
 - 4) Remove the instruction manual.
- d. Remove the upper pad.
- e. Remove the vinyl sheet.
- f. Remove the desk unit.



3. Setting-up procedure

(1)	Installing desk unit
A	Place the copier on the desk
B	Secure the copier to the desk
C	Connect the desk relay harness
D	Secure the desk on the floor
(2)	Releasing optical system lock
(3)	Setting fusing unit
A	Removing fusing unit
B	Pressurize heat roller
C	Installing cleaning roller
(4)	Cleaning charger roller
A	Cleaning main charger unit
B	Cleaning transfer/separation charger unit wire
(5)	Installing RADF tray
A	Connecting RADF tray connector
B	Installing tray
(6)	Setting developer unit
A	Removing the developing unit
B	Supplying the developer
C	Adjusting toner density sensor level
D	Checking process control sensor value
(7)	Toner supply
(8)	Setting up paper tray 1/2
(9)	Setting up paper tray 3 (LCC tray)
A	Paper size setting
B	Adjust any center misalignment
(10)	Checking copy density
(11)	Installing sorter (SF-S53N) <option>
(12)	Installing sorter (SF-S15) <option>

(1) Installing desk unit



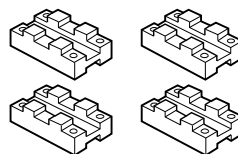
Included parts

Parts for use with the Deck unit

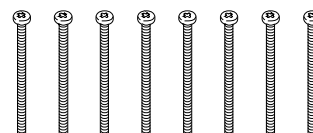


Mounting screws
(4 pcs.)

Parts for use with the SF-S53N



Caster spacers
(4 pcs.)



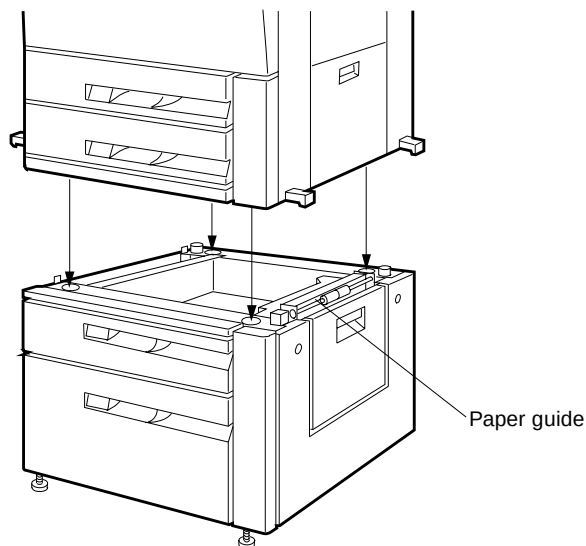
Caster mounting screws (M4 x 60)
(8 pcs.)

Be sure to unplug the copier before carrying out the following procedures.

A. Place the copier on the desk.

Place the copier on the desk so that the feet of the copier fit into the corresponding holes in the desk.

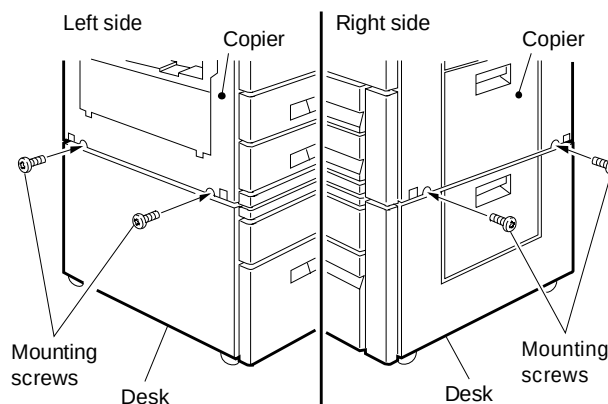
When doing this, be careful that the copier does not come to rest on the paper guide or other parts of the desk that might be damaged by the weight of the copier.



B. Secure the copier to the desk.

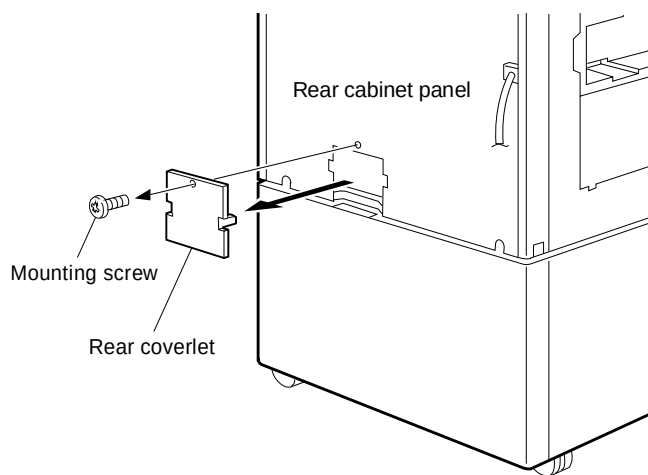
Use the included four mounting screws to secure the copier to the desk.

- In addition to securing the copier to the desk, these screws also function to electrically ground the desk, so be sure to tighten all mounting screws securely.



C. Connect the desk relay harness.**a. Remove the rear coverlet of the copier.**

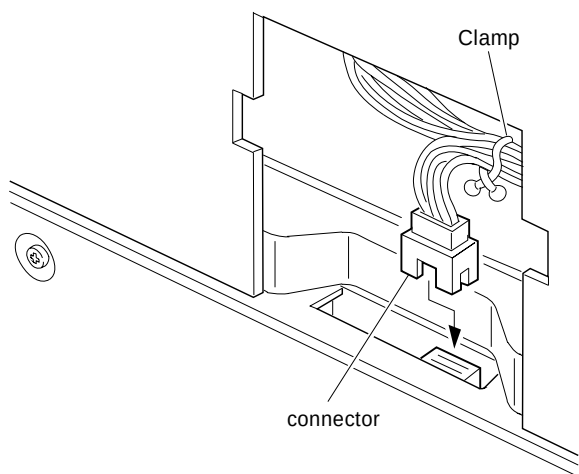
Remove the mounting screw which holds the rear coverlet to the rear cabinet panel, then remove the rear coverlet.

**b. Connect the desk relay harness.**

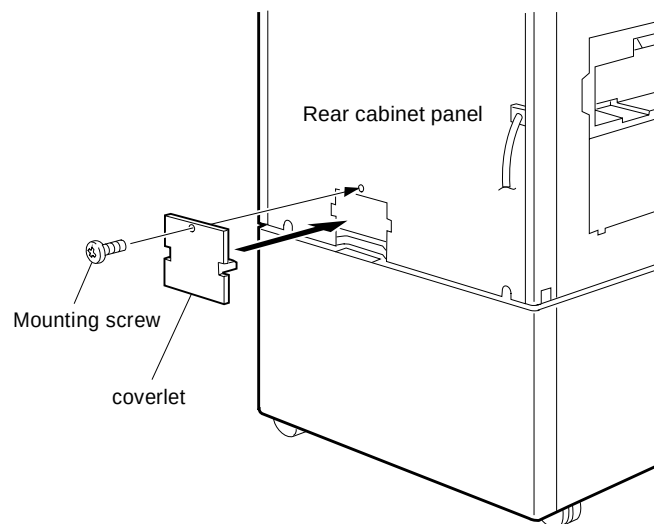
Remove the connector harness from the clamp which bundles the desk relay harness together.

Next, remove the temporary connector which is attached to the connector of the desk relay harness, and connect the connector from the copier into the connector on the desk.

* Note that the temporary connector will no longer be used.

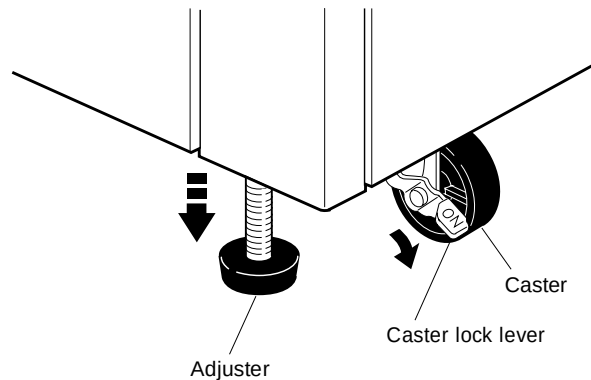
**c. Remount the rear coverlet of the copier.**

Return the rear coverlet to its document position and use its mounting screw to mount it.

**D. Secure the desk on the floor.**

Turn clockwise the two adjusters at the lower front of the desk to lower them to the floor and secure the desk in place.

Use the caster lock levers on the front side (right and left) of the desk to lock the casters in place.

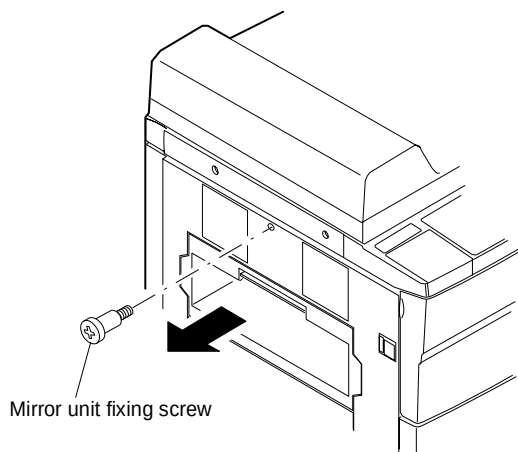
**Note:**

Turning on the power with no desk connected causes the trouble "U6-00," thereby disabling the machine operation.

(2) Releasing optical system lock

Remove the 2nd/3rd mirror unit locks.

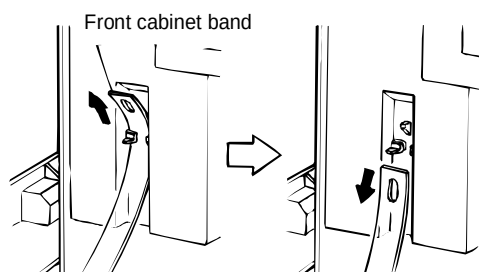
Remove the screws securing the 2nd/3rd mirrors on the left side of the machine.



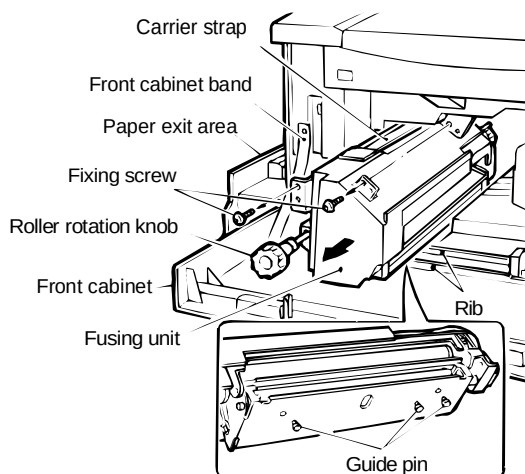
(3) Setting fusing unit

A. Remove the fusing unit.

- a. Lifting the paper exit knob, open the paper exit. Then, remove the front cabinet band on the left side of the front cabinet.

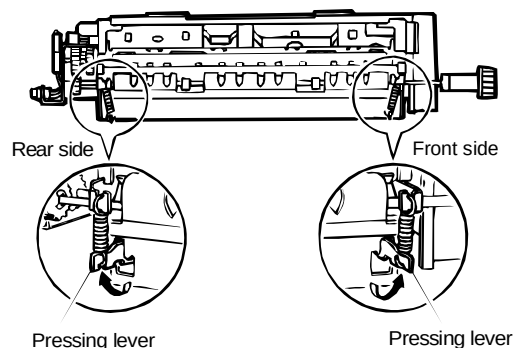


- b. Remove the screw securing the fusing unit.
- c. Holding the rotating knob of the fusing unit, remove the fusing unit carefully pressing the front cabinet. At this time, use caution not to let the guide pin at the bottom of the fusing unit contact the front cabinet rib. Then, holding the carrier strap of the fusing unit, remove the fusing unit.



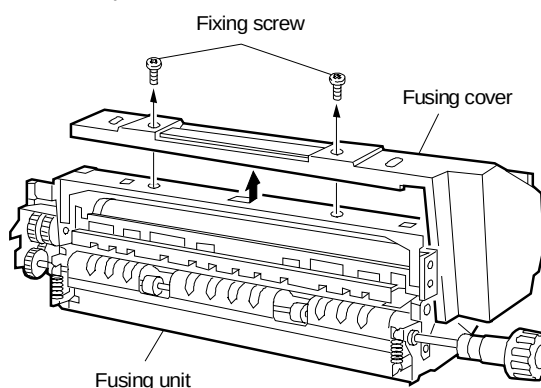
B. Pressuring heat roller

Move the pressuring levers at the front and rear sides of the fusing unit as shown in the figure below. This applies pressure on the upper and lower heat rollers.

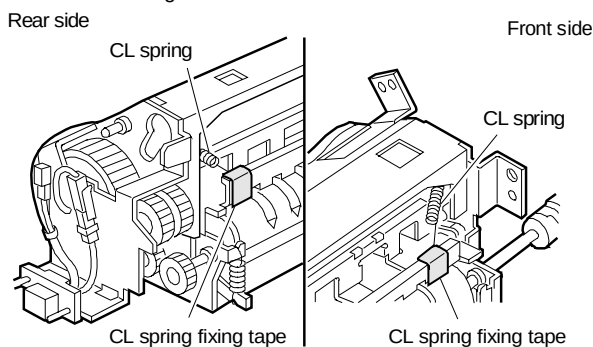


C. Installing cleaning roller

- a. Remove the screw securing the fusing cover. Slide the fusing cover toward you to remove it.

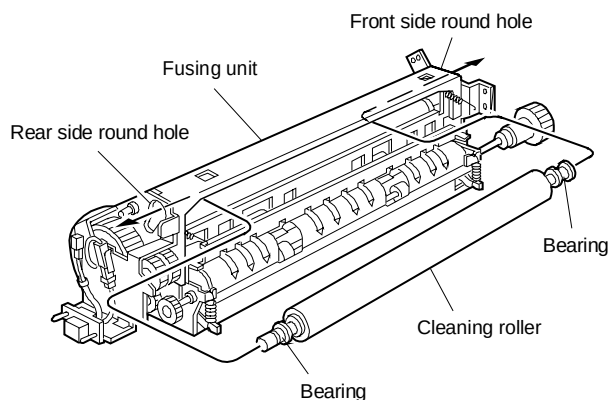


- b. Remove the CL springs secured by tape onto the front and rear sides of the fusing unit.

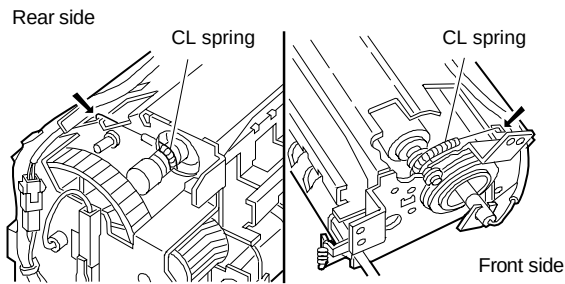


Note: Make sure to remove fixing tape carefully and thoroughly.

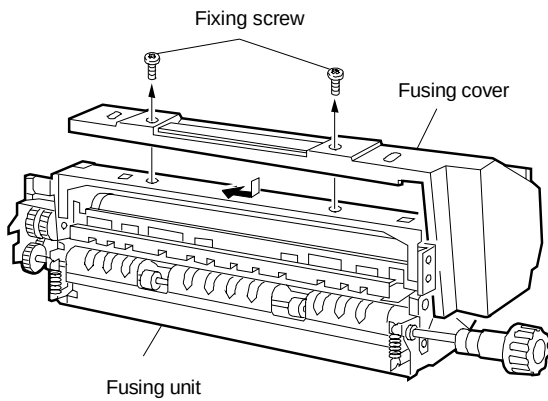
- c. Pass the cleaning roller through the round hole in the rear side of the fusing unit. Insert the cleaning roller through the front round hole. Then, position the bearings of the cleaning rollers at both the front side and the rear side.



- d. Hook the CL spring on the front and rear frames of the fusing unit. Make sure that the CL spring presses the bearing as shown in the figure below.

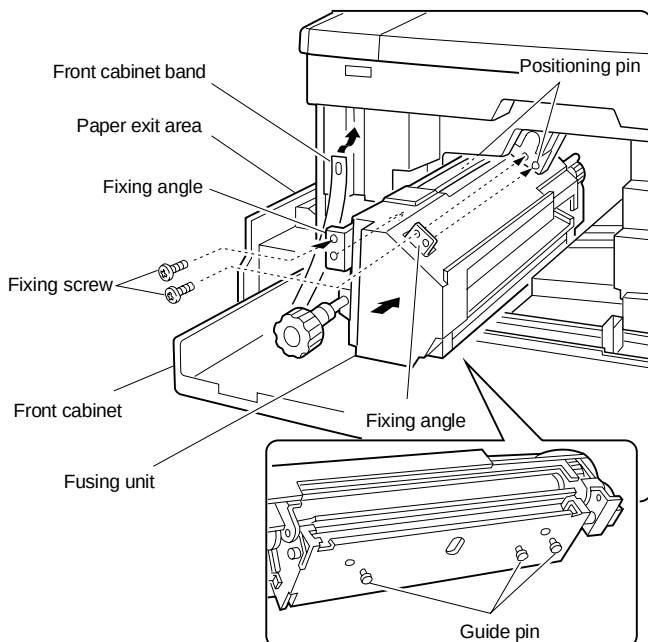


- e. Reinstall the fusing cover which was removed in step a, and secure it with screws.



- f. Place the guide pin at the bottom of the fusing unit in the groove of the copier. Holding down the front cabinet, push in the fusing unit slowly as far as possible.

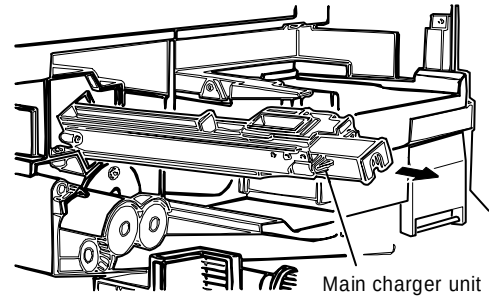
At this time, make sure the positioning pin of the copier frame is securely installed in the positioning hole in the fusing unit fixing angle. Secure with the fixing screws which were removed in step (3) A. b., and close the paper exit unit. Reinstall the front cabinet band which was removed in step (3) A. a. Close the paper exit unit.



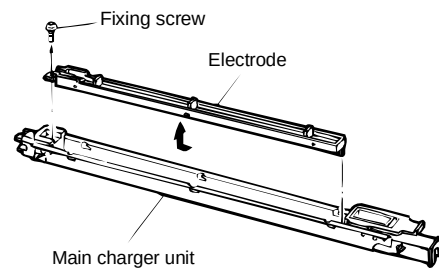
(4) Cleaning the charger

A. Cleaning main charger unit electrode

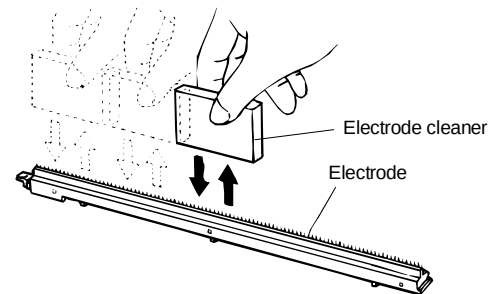
- a. Holding down the hook of the main charger unit, release the lock. Pull out the main charger unit from the copier and remove it.



- b. Remove the screw securing the electrode to the rear side of the main charger unit. Remove the electrode.

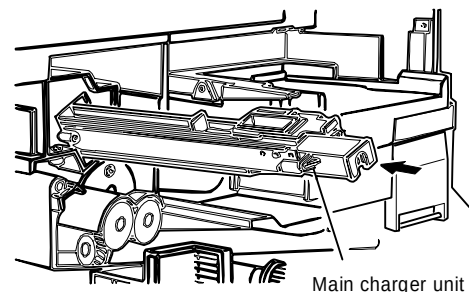


- c. Stick the electrode cleaner to the tips of the electrode for cleaning two or three times.



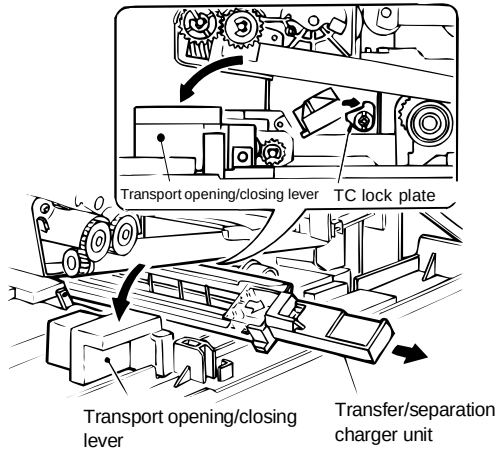
- Note:
- Do not move the cleaner with the electrode tips stuck into the cleaner.
 - Cleaning should be evenly on the whole area, but not partly.

- d. Install the electrode on the document position and secure with the screw.
- e. Slide the main charger unit along the copier guide securely to stop.

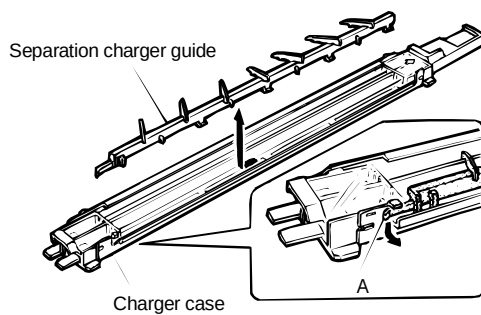


B. Cleaning transfer/separation charger unit wire

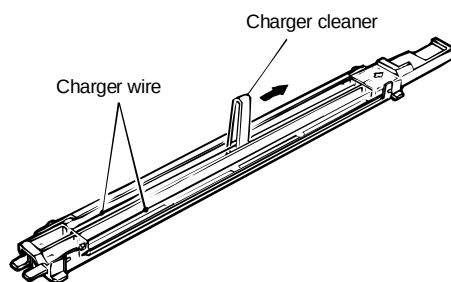
- a. Bring the transport opening/closing lever down to the left. Turn the TC lock plate clockwise with a scale or a slotted screwdriver to release the TC lock. Remove the transfer/separation charger unit from the copier.



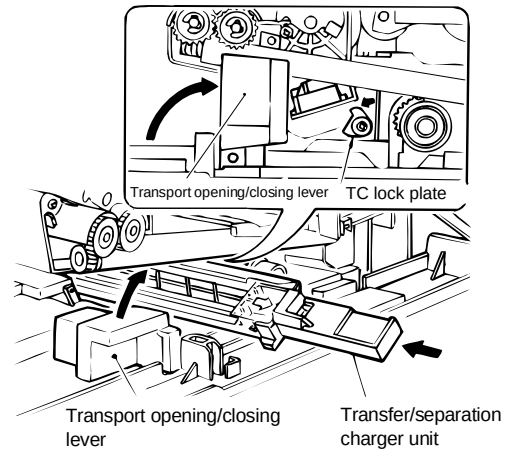
- b. Remove the part A of the separation charger guide and slide the guide in the direction indicated by the arrow, to remove the separation charger guide from the charger case.



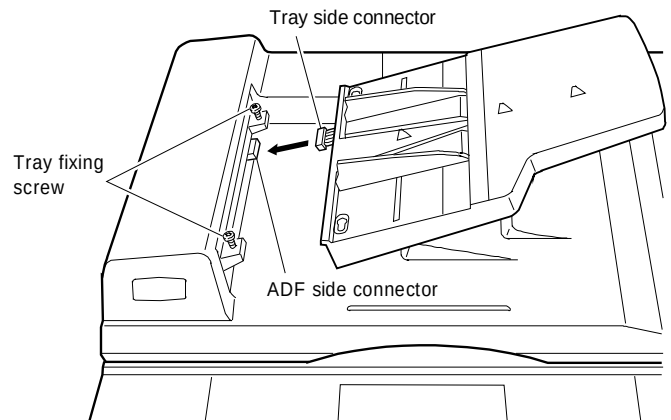
- c. Clamp the transfer/separation charger wire with the charger cleaner, and clean the wire by moving the cleaner in the direction indicated by the arrow.



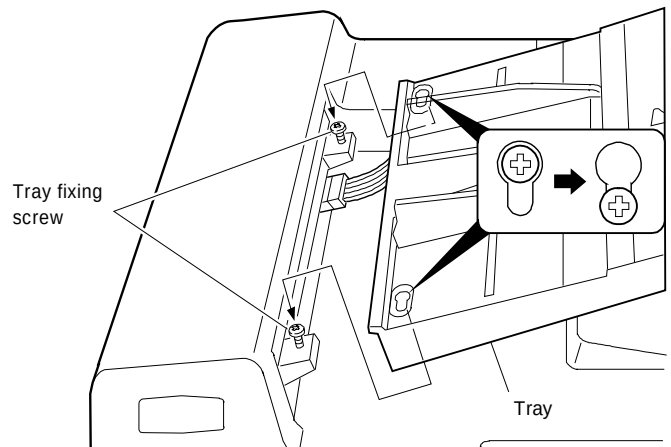
- d. Install the separation charger guide on the charger case. Insert the transfer charger unit, along the groove in the guide, all the way to stop. Turn the TC lock plate counterclockwise to lock. Back off the transport unit opening/closing lever clockwise to close the front cabinet.

**(5) Installing RADF tray****A. Connect RADF tray connector**

- a. Temporarily install the tray fixing screws to connect the RADF connector to the tray connector.

**B. Installing tray**

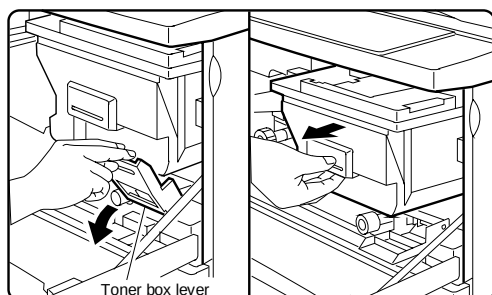
- a. Install the tray as shown in the figure below, and secure with the screws.



(6) Setting up developer unit

A. Removing the developing unit.

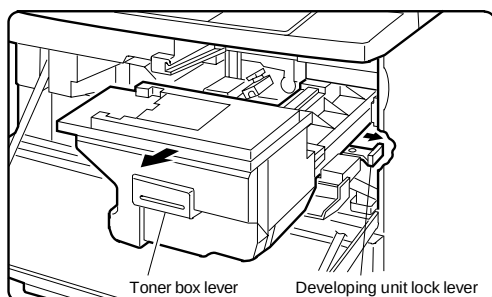
- Open the front cabinet.
- Tilt down the toner box lever and pull out the toner box until it stops.



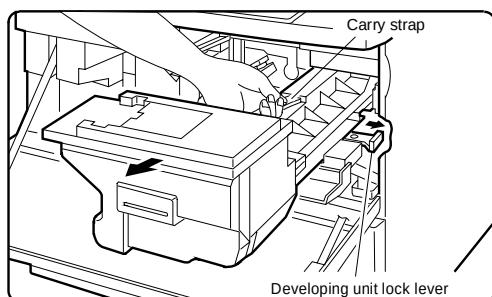
- Slide the developing unit lock lever in the arrow direction to release lock, and hold the toner box lever and pull out the developing unit until it stops.

[Note]

- When lock is released and the developing unit becomes free to move, let go of the developing unit lock lever.



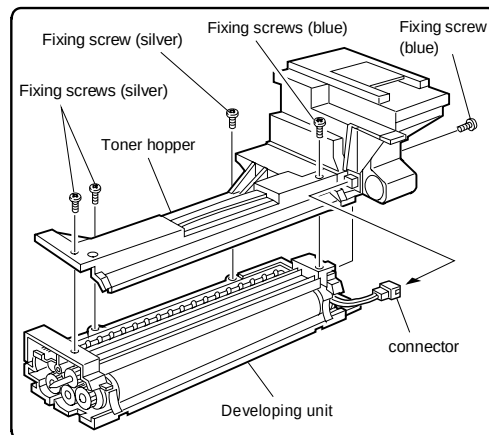
- Hold the carry strap of the developing unit and slide the developing unit lock lever in the arrow direction to release lock. Then remove the developing unit.



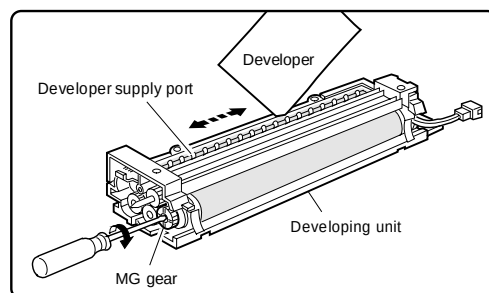
B. Supplying developer

- Remove the connector which is connecting the toner hopper and the developing unit.

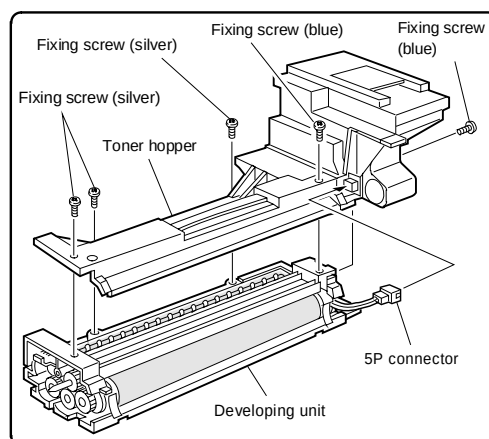
Remove the five toner hopper fixing screws, the developing unit, and remove the toner hopper.



- While supplying developer from the developer supply port of the developing unit, turn the MG gear clockwise with a screwdriver (+) or a scale to completely supply developer into the developing unit.



- Install the toner hopper to the developing unit, and fix it with the five screws. Connect the 5P connector of the developing unit with the toner hopper.



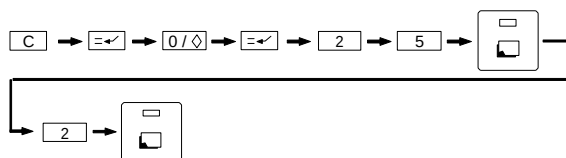
Note: If the hopper and the five screws are not securely fixed, toner may flow into the developing unit when supplying toner.

C. Adjusting toner density sensor level

Turn ON the power supply switch of the copier.

Note: Make sure the main charger unit is securely inserted, before executing simulation 25-1 or 25-2.

- a. Carry out the following key operation for the simulation 25-2.



- b. The simulation 25-2 is finished in 3 minutes.

Note: Do not cancel the simulation during execution, because automatic reading cannot be performed.

- c. Cancel the simulation 25 with the **CA** key.

Note: The simulation 25-2 should be performed whenever the developer is replaced with a new one. The developing adjustment value for servicing should be checked by executing the Sim 25-1. (If the Sim 25-2 is used for this purpose, toner density trouble might occur.)

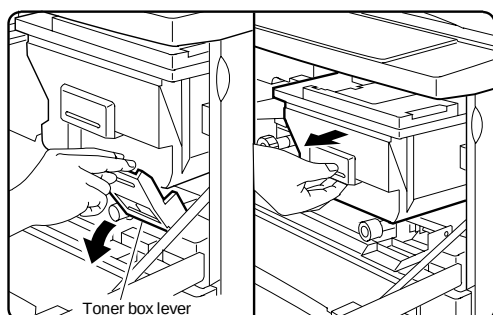
D. Checking process control sensor value

Execute Sim44-2 and Sim44-3, to make sure that the results are within a range of 210 ± 30 . If any of the results are out of the range, adjust, referring to the procedure described under "Image Adjustment."

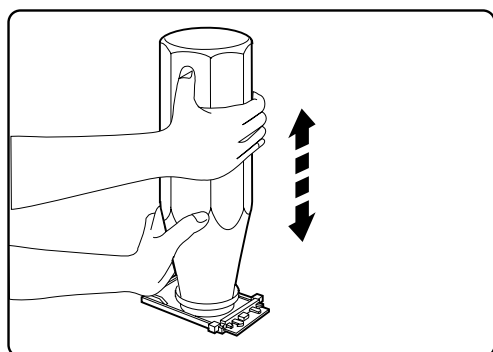
(7) Toner supply

A. Toner supply

- a. Open the front cabinet.
b. Tilt down the toner box lever towards you and pull out the toner box until it stops.

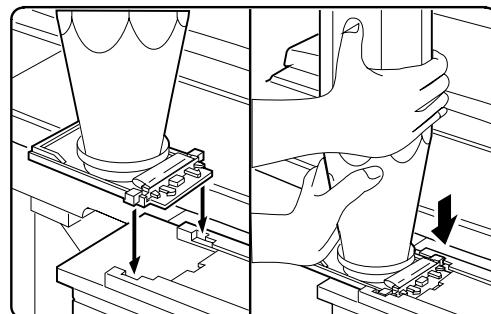


- c. Shake the toner cartridge up and down about 5 times.

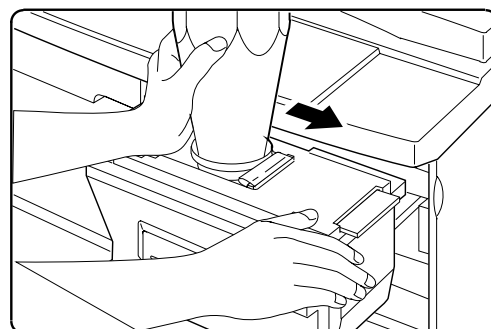


Note: Though the cartridge look like that of the SF-2025/2030/2040, its cap pawl shape and position are different and the color of the cap slide section is brown for identification.

- d. Install the toner cartridge to the toner box as shown in the figure below.



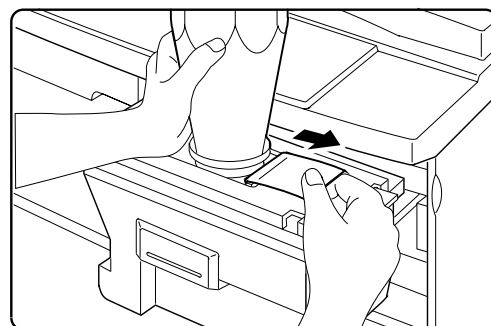
- e. Move the toner cartridge in the arrow direction until it stops.



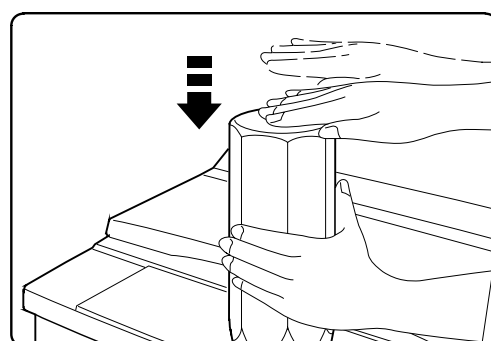
- f. While holding the toner cartridge, pull the seal to supply toner.

[Note]

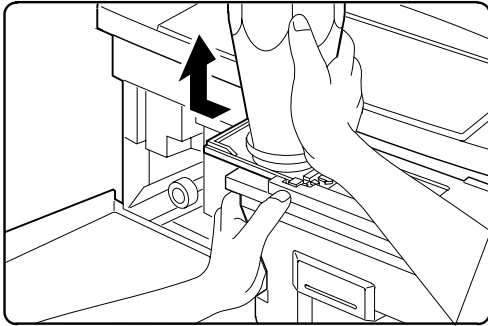
- It takes about 30 seconds to finish supplying toner.



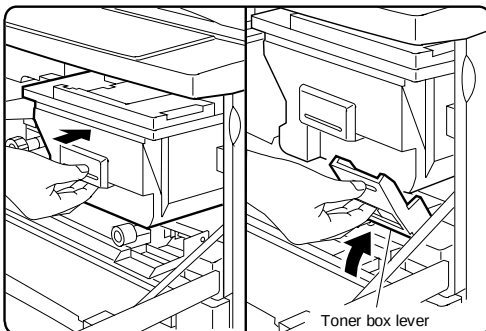
- g. Tap the top of the toner cartridge to put down toner attached inside the toner cartridge.



- h. Move the empty toner cartridge in the arrow direction to remove.



- i. Push the toner box slowly to the document position, and lift the toner box lever.

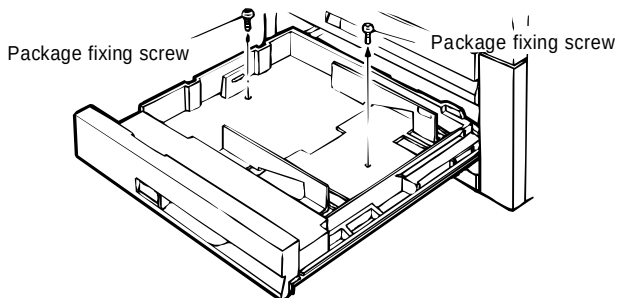


Toner supply is completed with the above procedure. Close the front cabinet.

(8) Setting up paper tray 1/2

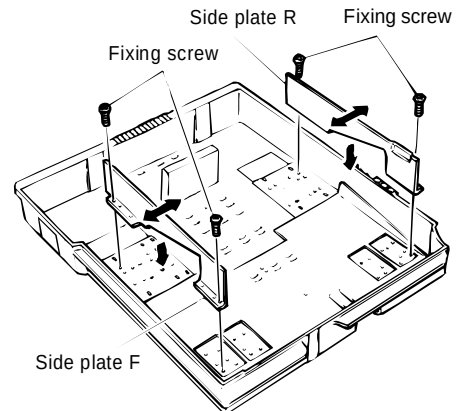
- a. Removing the tray package fixing screws.

Remove the package fixing screws securing the paper pressing plate in the tray.



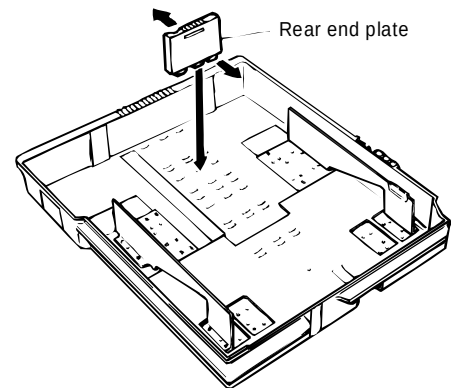
- b. Changing the side plates F and R sizes (factory set for A/3 or double letter size)

Install the side plates F and R on the tray, along with the markings, so that they form the paper size you want. Secure them with screws.



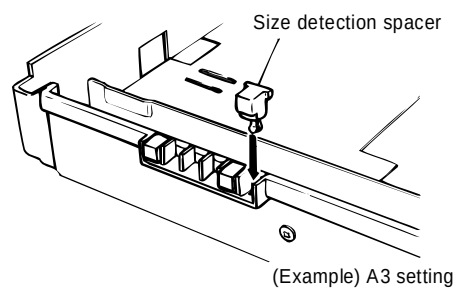
- c. Changing rear end plate position

Remove the rear end plate and reinstall it at the position which the paper size you want is created.

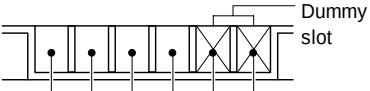


- d. Setting size detection spacer

Install the size detection spacer in an appropriate position so that your desired paper size is created.



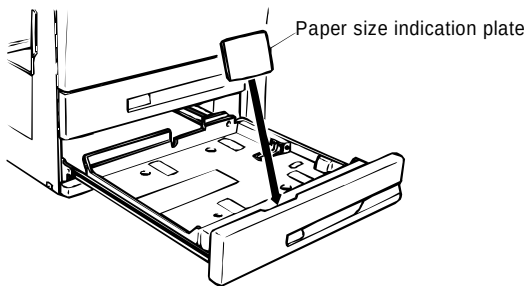
Size detection spacer setting



A3	→								
A4	→								
A4R	→								
B4	→								
B5	→								
B5R	→								
W Letter	→								
Legal	→								
Letter R	→								
Letter	→								
Invoice	→								
A5	→								

e. Changing paper size indication plate

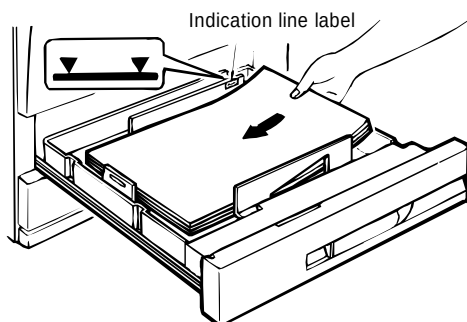
Install the paper size indication plate so that the name of the paper size you preset can be seen through the paper size indication window.



Note: Remember that the paper size indication plate carries paper size names on its both face and back sides.

f. Setting paper

Set less than the specified amount of sheets of paper in the tray. Push in the tray into the copier as far as possible.

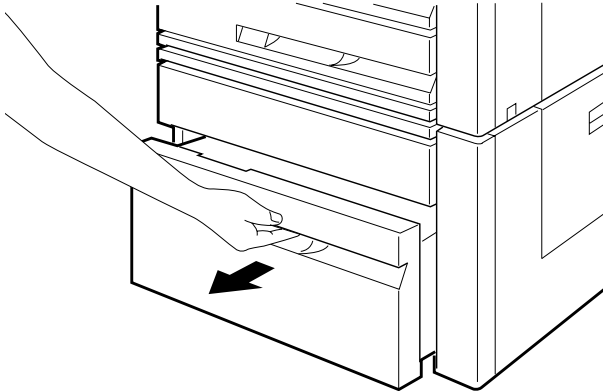


(9) Setting up paper tray 3

A. Paper size setting

a. Pull out the cassette.

Grasp the cassette by the handle and pull it out gently as far as it will go.

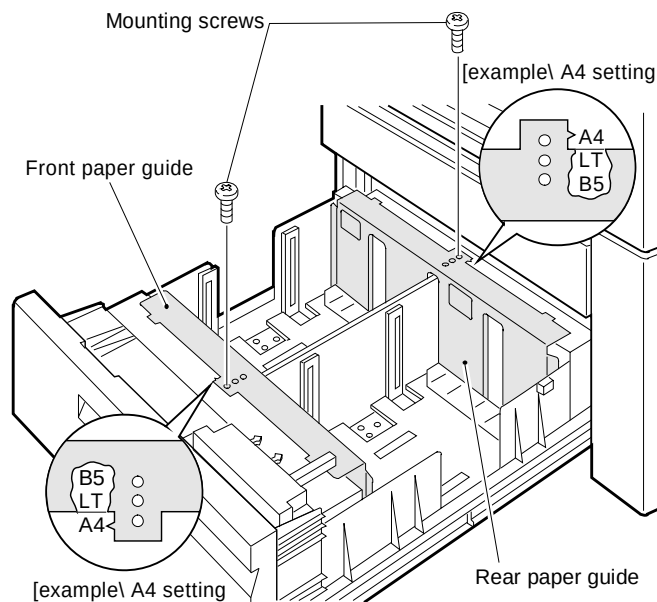


b. Adjust the front and rear paper guides.

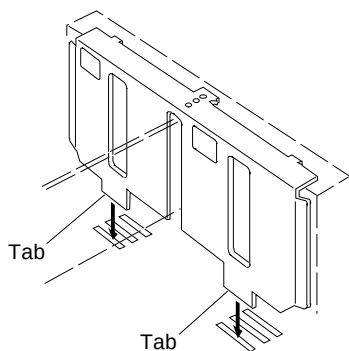
Remove the mounting screws holding the front and rear paper guides (one screw per guide) in place.

Insert the tabs (two on the bottom of each paper guide) into the cassette in the notches corresponding to the desired paper size.

Next, use the mounting screws to secure the top of the front and rear paper guides (one screw per guide) in the positions corresponding to the desired paper size.



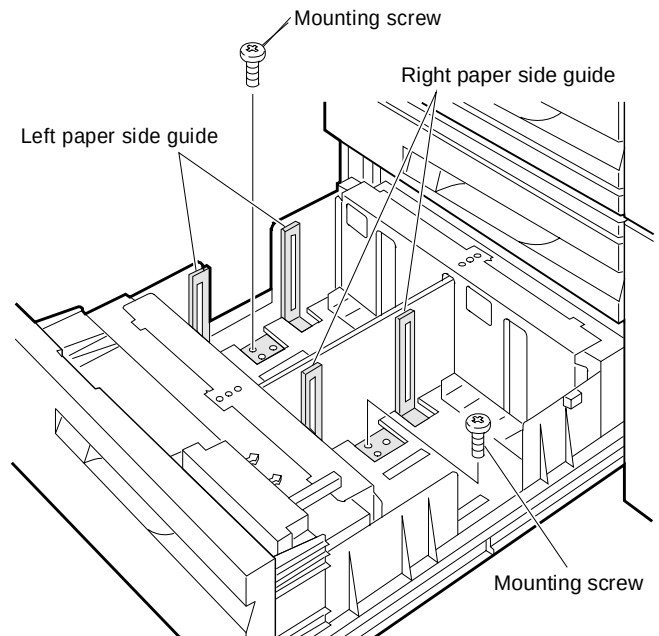
Rear paper guide (front paper guide)



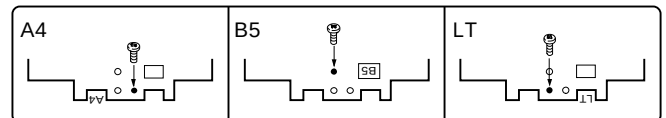
c. Adjust the side guides

Remove the mounting screws (one per guide) holding the right and left paper side guides in place.

Use the mounting screws to secure the right and left paper size guides (one screw per guide) in the positions corresponding to the paper size which has been set.

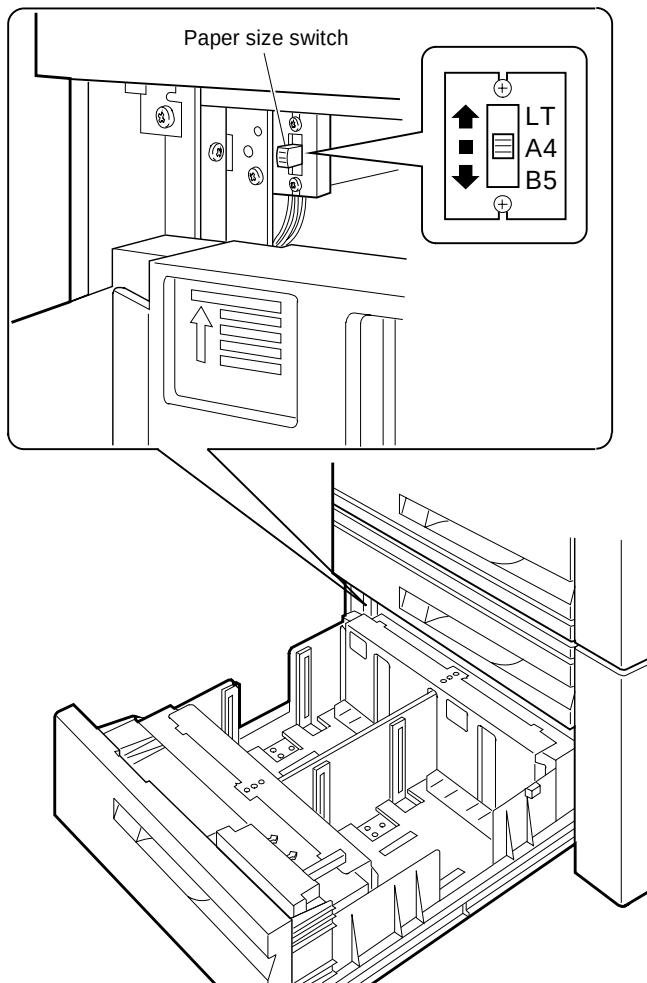


Where to set the mounting screw for various paper sizes



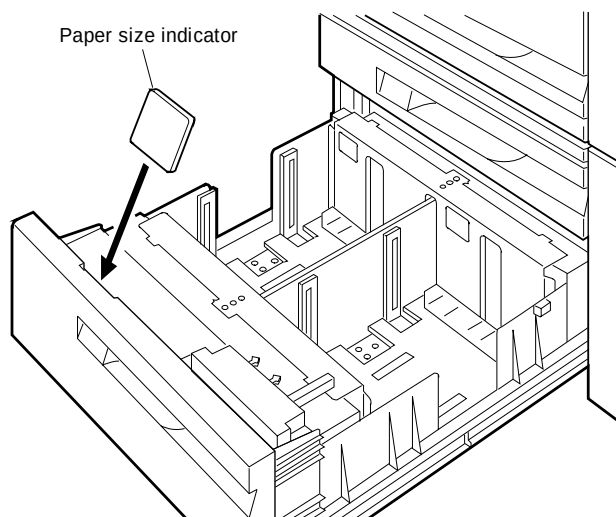
d. Set the paper size switch

Set the paper size switch to match the paper size which has been set.

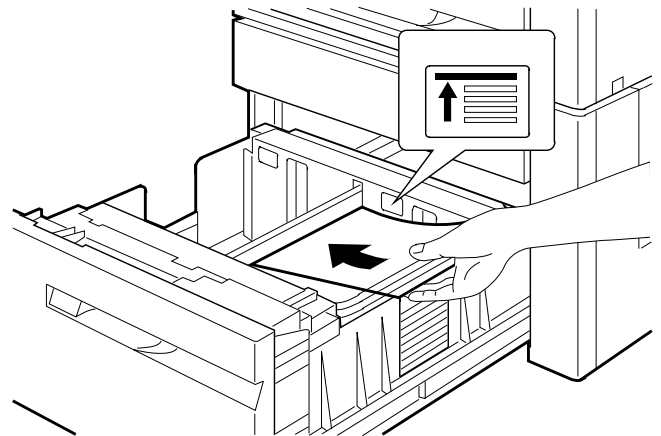
**e. Change the paper size indicator.**

Remove the paper size indicator and re-insert it so that the paper size for which the cassette has been set is visible in the paper size indication window.

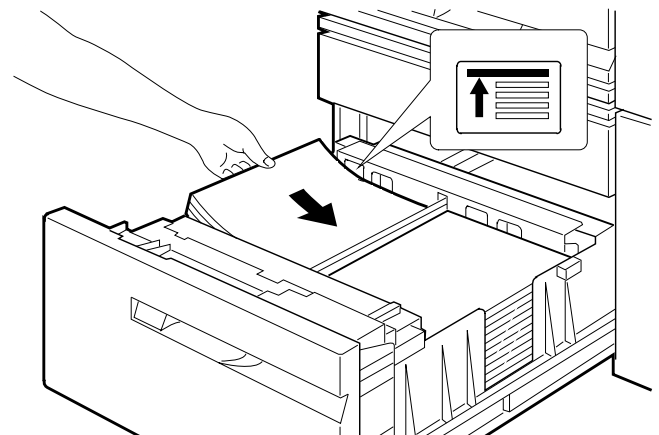
Note that paper size indications are printed on both sides of the paper size indicator.

**f. Place the paper in the cassette.**

Place paper in the right paper cassette. When doing this, do not stack the paper higher than the maximum height line indicated on the cassette.



Next, place paper in the left paper cassette. When doing this, do not stack the paper higher than the maximum height line indicated on the cassette.



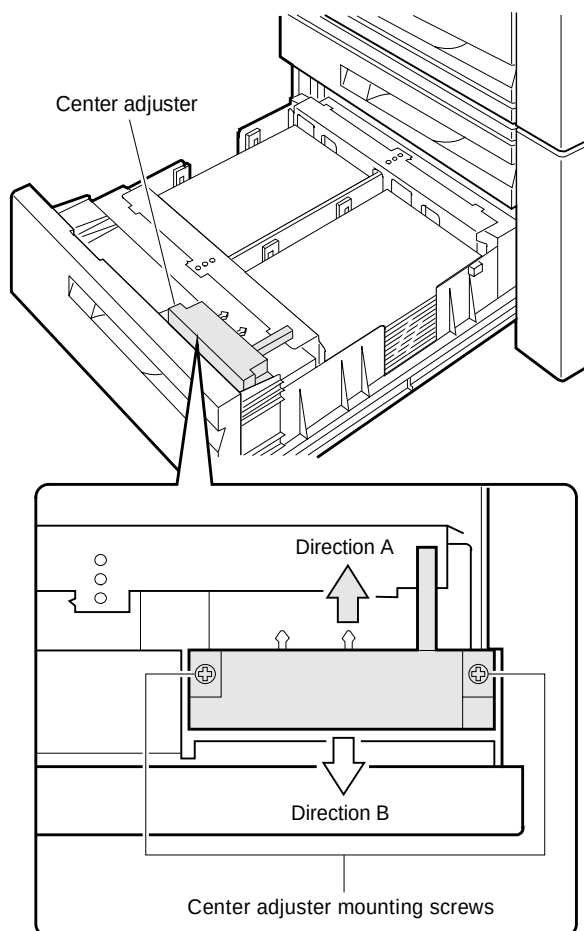
Grasp the cassette by the handle and gently push it all the way into the desk as far as it will go.

Plug the copier into a grounded outlet and turn the power switch on. Then, follow the procedure below.

B. Adjust any center misalignment.

No adjustment should be needed for the unit as it is factory-set. However, if it is off-center, adjust it according to the following procedure.

Make a copy. If it is off center as shown in fig. 1 or fig. 2, loosen the two center adjuster mounting screws attached to the cassette and adjust it following the procedure below.

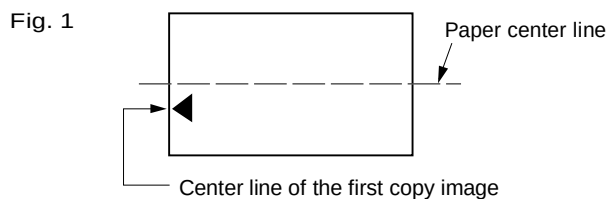


[Note]

When mounting the center adjuster, make sure that the mounting screws are positioned in the same spot in their respective slots.

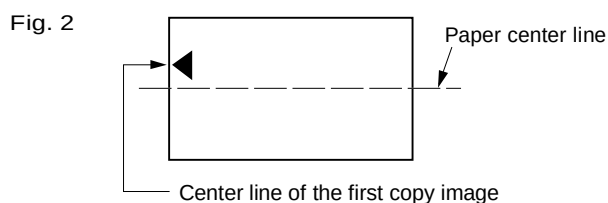
When off center as shown in fig. 1

Move the center adjuster in direction A and secure it with the two mounting screws. Make a copy to check whether it is centered properly.



When off center as shown in fig. 2

Move the center adjuster in direction B and secure it with the two mounting screws. Make a copy to check whether it is centered properly.



(10) Copy density check

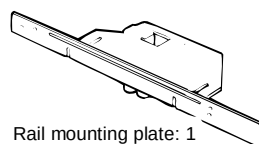
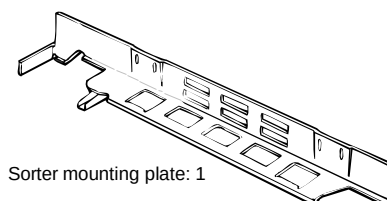
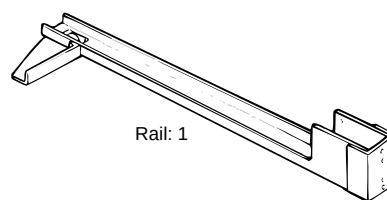
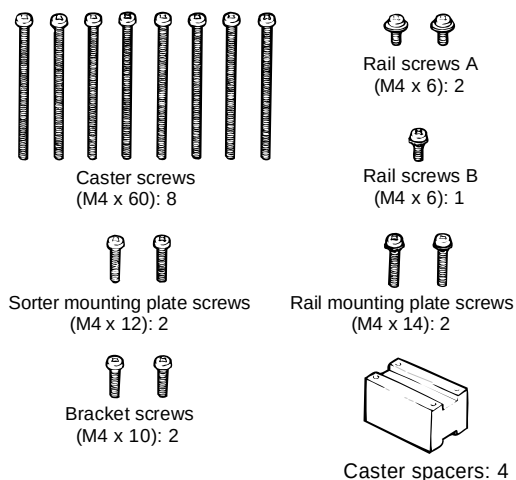
After installing the copier, check the copy density. If the density is not in the specified range, adjust it.
(Refer to the print quality adjustment.)

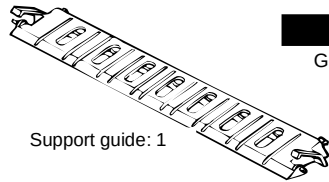
(11) Installing sorter (SF-S53N)

<option>

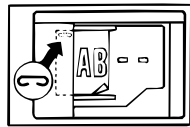
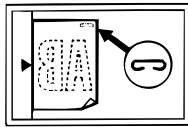
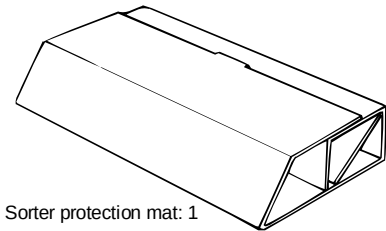


Included parts





Green label: 1



In addition, the sapper is required which is packed together with the desk.

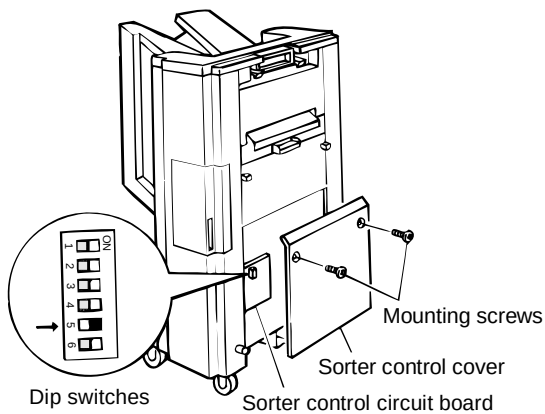
Before installing

Before installing to copier model, turn the DIP switches to "ON".

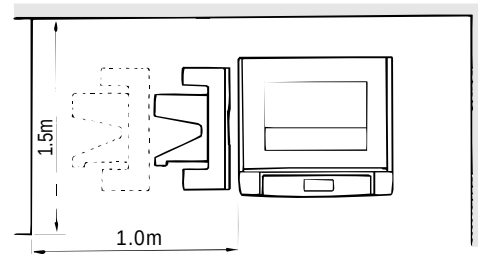
Remove the 2 mounting screws securing the sorter control cover, then remove the sorter control cover.

Next, move dip switch number 5 to the "ON" position (the dip switches are attached to the sorter controller circuit board).

Reattach the sorter controller cover in its document position and secure it with the 2 mounting screws.



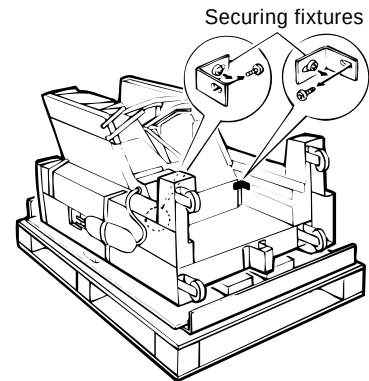
Be sure that you have plenty of room around the copier for work space.



Remove the securing fixtures and attach the caster spacers.

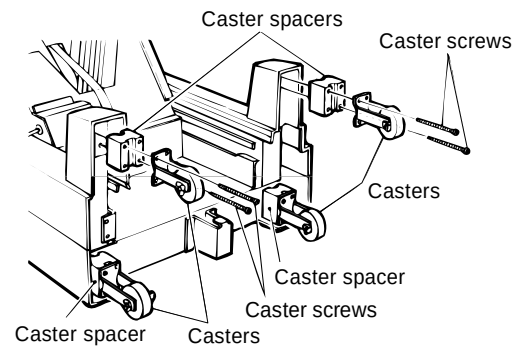
★ When performed on the skid.

Remove the securing fixtures (2).



Remove the caster screws (2 per caster) and take off the 4 casters.

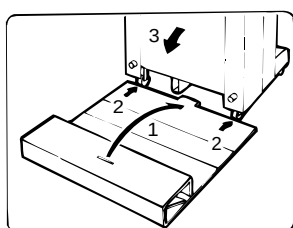
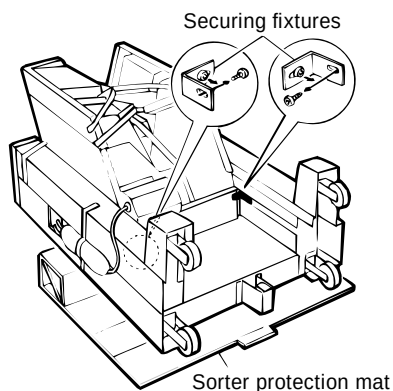
Next, attach the casters and caster spacers using 2 screws each (M4 x 50) as shown in the figure.



★ **When not performed on the skid**

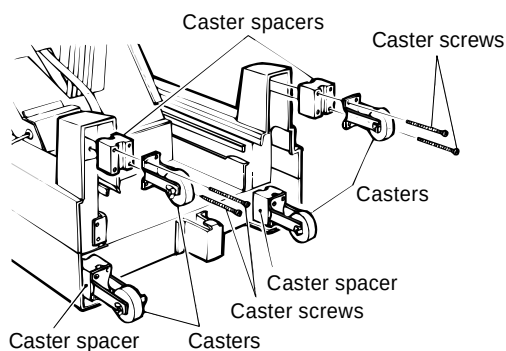
Open the sorter protection mat, as shown in the figure, and position it against the sorter's casters. Lay the sorter down on the protection mat.

Next, remove the securing fixtures (2).

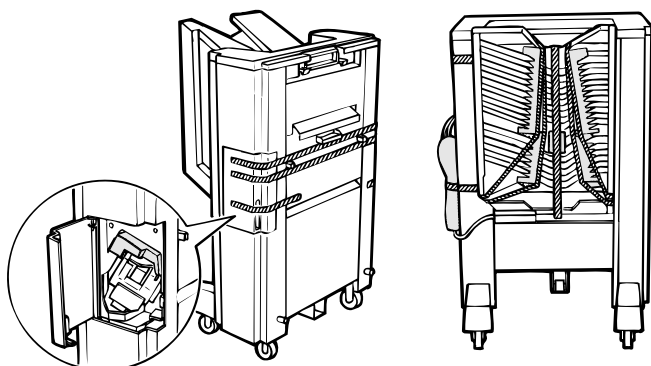


Remove the caster screws (2 per caster) and take off the 4 casters.

Next, attach the casters and caster spacers using 2 screws each (M4 x 50) as shown in the figure.



Remove all the securing tape () and securing materials () shown in the figures below.



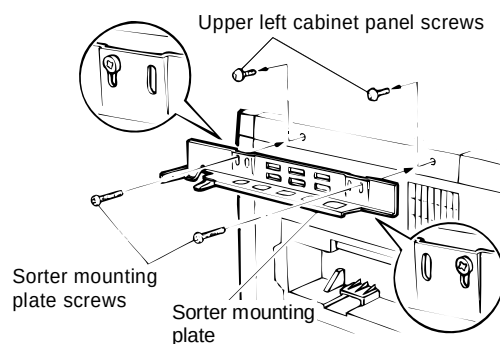
Unplug the copier's power cord before carrying out the following procedure.

A. Mounting of the staple sorter onto the copier.

1. Attach the sorter mounting plate.

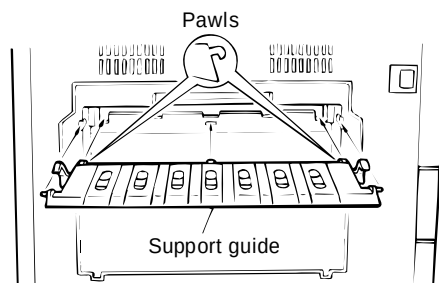
Remove the screws (2) from the copier's upper left cabinet panel. Attach the sorter mounting plate with the 2 sorter mounting plate screws (M4 x 12).

The sorter mounting plate screw holes are elongated; tighten the screws so that the sorter mounting plate hangs down in its lowest position.



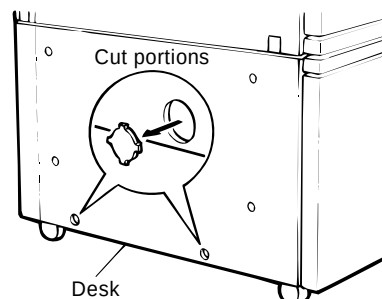
2. Attach the support guide.

Attach the support guide by attaching its pawls (2 locations) to the inside of the copier's paper output section.



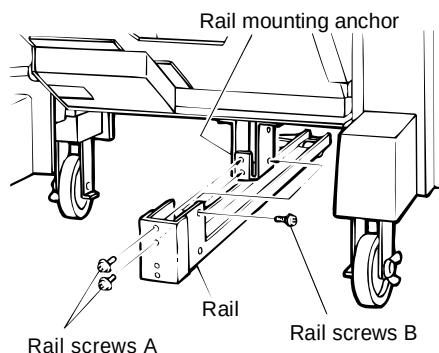
3. Cut off the cut portions of the desk's left cabinet panel.

Cut off the 2 cut portions of the desk's left cabinet panel.



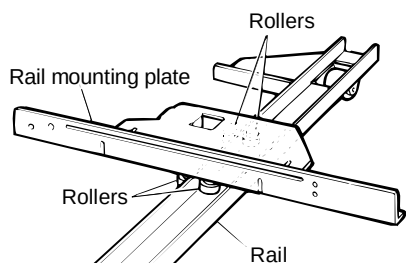
4. Attach the rail to the sorter.

Insert the rail into the rail mounting anchor, on the bottom of the sorter, and attach them with the 2 rail screws A (M4 x 6) and 1 rail screw B (M4 x 6).



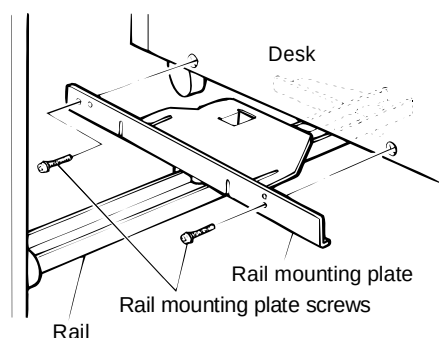
5. Fit the rail mounting plate onto the rail.

Insert the rail between the rollers on the rail mounting plate as shown in the figure.



6. Attach the rail mounting plate to the copier desk.

Slide the rail, which was just attached to the sorter, under the copier as shown in the figure. Attach the rail mounting plate to the copier with the 2 rail mounting plate screws (M4 x 14).

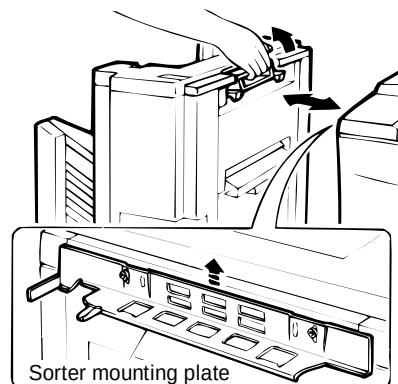


7. Confirm that the staple sorter can be attached and detached correctly.

- ① Latch and unlatch the staple sorter from the copier to confirm that it moves smoothly.

- ② Confirm that the staple sorter locks into place beside the copier.

If not, adjust the height of the sorter mounting plate until the staple sorter locks securely into place.



8. Remove the copier's rear cabinet panel and cut off the cut portion of the left cabinet.

Remove the screws securing the copier's rear cabinet panel and take the panel off.

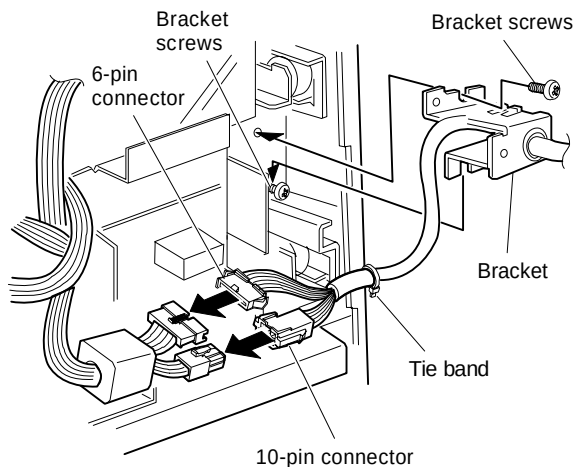
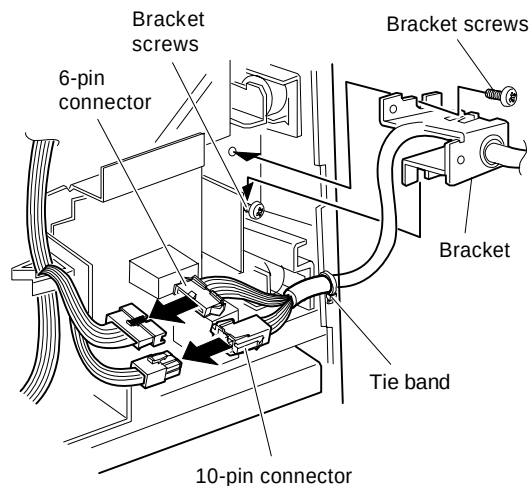
Next, cut off the cut portion (1 location) of the left cabinet panel.

9. Attach the sorter connectors.

Loosely screw in one of the two supplied bracket screws in the position shown in the figure.

Hook the bottom of the bracket in place over this screw, then insert the other screw into the top of the bracket and tighten both screws.

Connect the sorter's 6-pin and 10-pin connectors to the copier's 6-pin and 10-pin connectors. Then insert the clasp of the tie band into the hole on the bottom of the mounting plate for the circuit board.



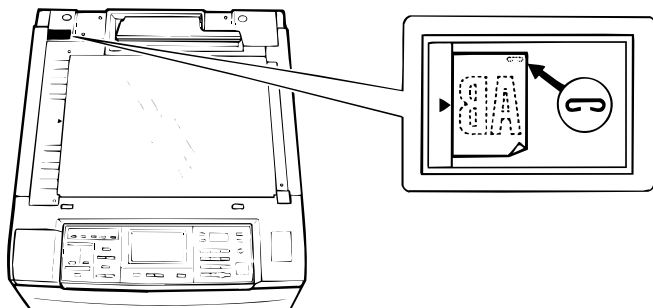
10. Reattach the rear cabinet panel.

Reattach the rear cabinet panel in its document position with the mounting screws.

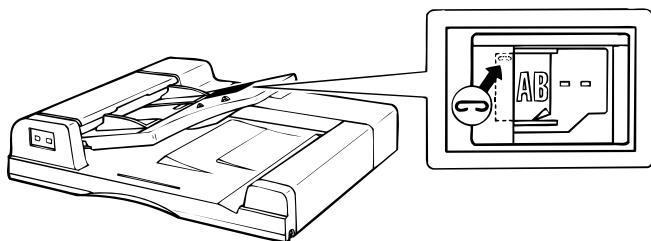
11. Affix the stapling location labels.

Affix the stapling location labels to the copier and RADF as shown in the figure.

★ Copier



★ RADF

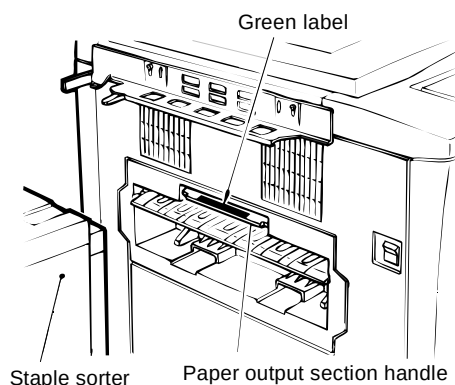


12. Affix the green label.

Lifting up on the staple sorter's release lever, separate the sorter from the copier.

Next, affix the green label to the paper output section handle as shown in the figure.

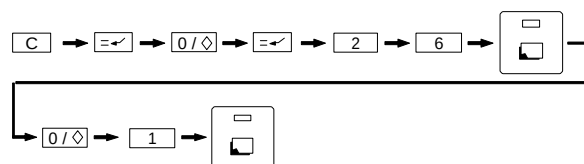
Holding the staple sorter's release lever, return the sorter to its document position. At this time, confirm that the staple sorter locks securely into place beside the copier.



Plug the copier's power cord into an electric outlet, switch on the power, and then perform the following procedure.

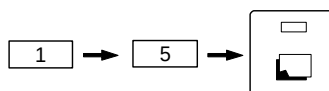
13. Set the mode.

- Perform the following key operations on the copier to set the mode.



Performing the above operation will cause the current setting to be displayed.

- The copier is equipped with the desk and RADF as standard. If an optional sorter is installed, set to "15".



B. Staple sorter operation check

1. Check the sort mode.

Make 20 copies in the sort mode and confirm that the copies are distributed to the sort bins with no abnormal noises from the sorter.

2. Check the non-sort mode.

Make copies in the non-sort mode and confirm that they are sent to the non-sort bin.

3. Use the RADF and check the staple sort mode.

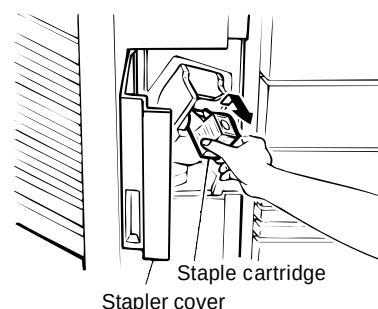
Place 2 or more sheets in the ADF and make copies in the staple sort mode. Confirm that the copies are distributed to the sort bins, that the staple guide bar arranges the copies and that the stapler functions properly.

If at this time the copies have not been stapled or the stapler is jammed, adjust the staples by performing one of the following procedures.

If copies have not been stapled

1. Remove the staple cartridge.

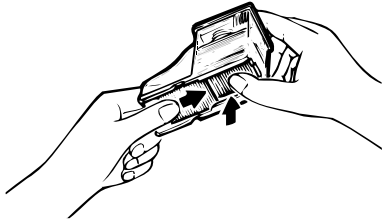
Open the stapler cover, lift up on the staple cartridge and remove it by pulling in the direction of the arrow.



2. Check the staple cartridge.

Confirm that the sheets of staples in the cartridge are properly stacked.

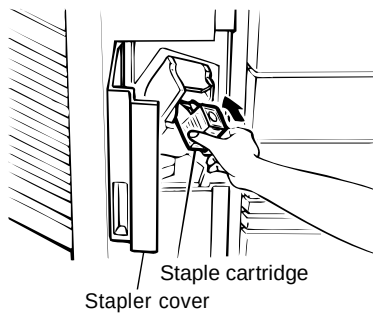
If not, slide the staples back in the direction of the arrow while pressing gently on the bottom of the cartridge.



3. Reinsert the staple cartridge.

Push the staple cartridge in horizontally until it clicks securely into place.

Then close the stapler cover.

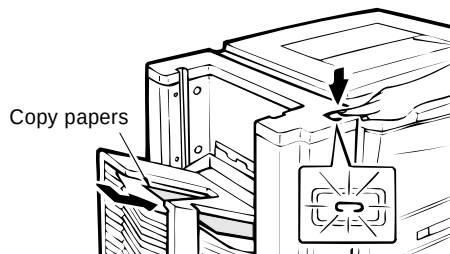
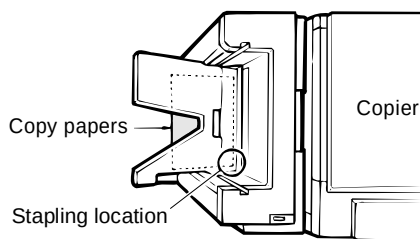


4. Confirm that papers are stapled correctly.

Place a set of papers in the 2nd bin (below the non-sort bin), check the stapling location, and then press the manual staple key when it lights up.

Next, remove the papers that were placed in the 2nd bin and confirm that they have been stapled correctly.

At this time, if the papers still have not been stapled, repeat this procedure once again.



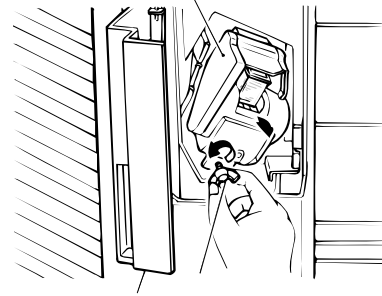
This completes the staple sorter installation.

If staples have become jammed.

1. Remove the stapler unit.

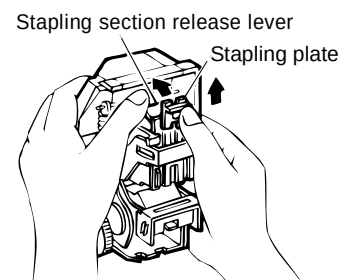
Open the stapler cover and remove the mounting screw securing the unit in place.

Next, remove the staple unit.



2. Open the stapling section.

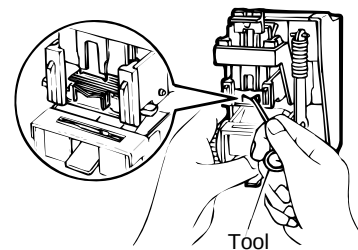
Open the stapling section by pushing up on the stapling plate while pressing on the stapling section release lever.



3. Remove the jammed staples.

Remove the jammed staples with the supplied tool as shown in the figure.

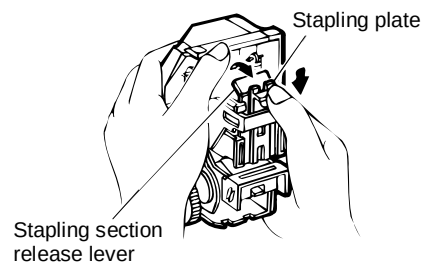
✱ This tool can be found on the inside of the staple unit cover.



4. Close the stapling section.

Press down on the stapling plate and return it to its document position.

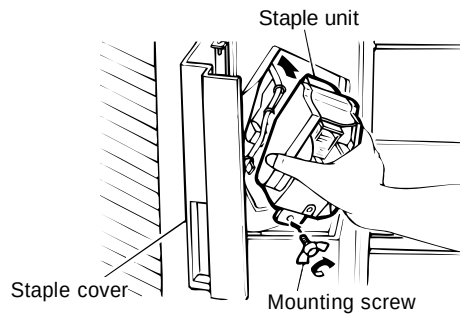
Next, return the stapling section release lever to its document position.



5. Reinstall the staple unit.

Reinstall the staple unit in its document location using the mounting screw to secure it in place.

Then close the stapler cover.

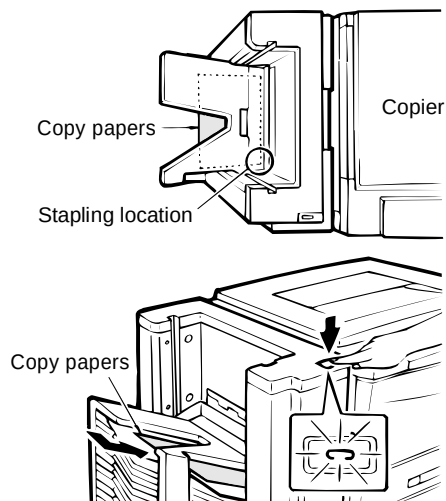


6. Confirm that papers are stapled correctly.

Place a set of papers in the 2nd bin (below the non-sort bin), check the stapling location, and then press the manual staple key when it lights up.

Next, remove the papers that were placed in the 2nd bin and confirm that they have been stapled correctly.

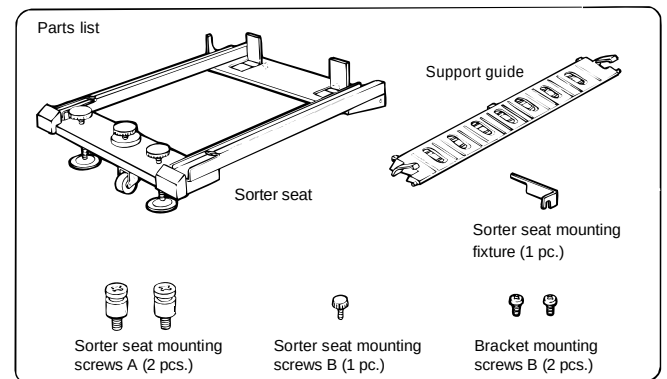
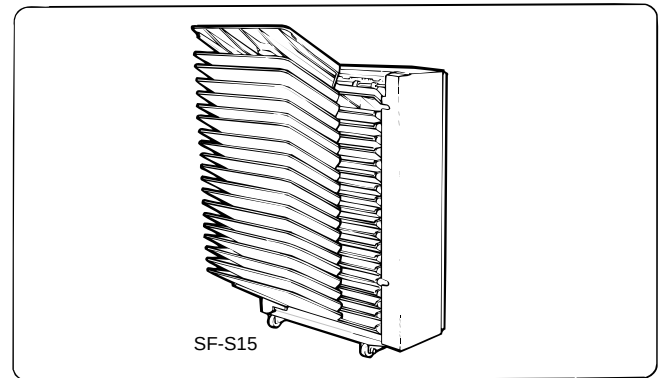
At this time, if the papers still have not been stapled, repeat this procedure once again.



This completes the staple sorter installation.

(12) Install a sorter. (SF-S15)

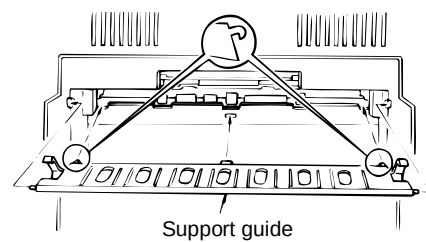
<Option>



Unplug the copier and follow the procedure below.

1. Install the support guide.

Hook the pawls (two locations) of the support guide to the inside of the copier paper exit end to install the guide as shown in Fig.

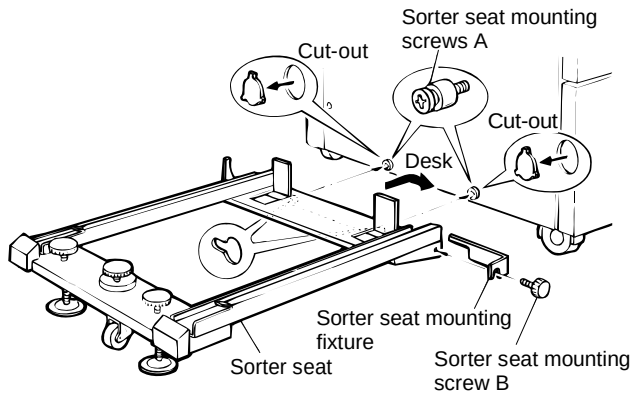


2. Mount the sorter seat to the desk.

Remove the two cut-outs in the cabinet panel on the left side of the desk.

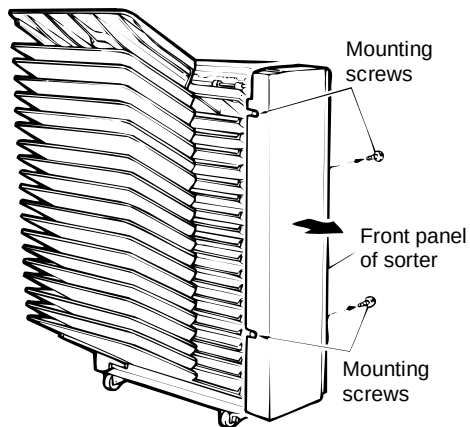
Secure the two sorter seat mounting screws A to the desk.

Next, hook the sorter seat onto the two sorter seat mounting screws A which were secured to the desk, and then use the one sorter seat mounting screw B to secure the sorter seat mounting fixture as shown.



3. Remove the front panel of the sorter.

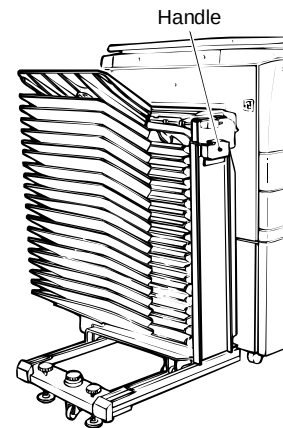
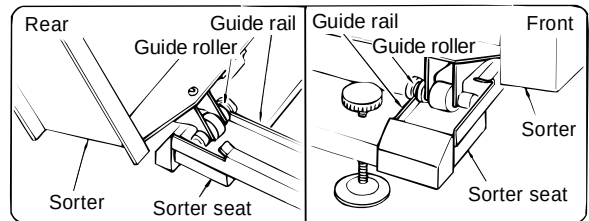
Loosen the four mounting screws in the front panel of the sorter and remove the panel.



4. Place the sorter on the sorter seat.

While holding the handle, place the sorter on the sorter seat's guide rails and push it gently as far back as it will go.

When doing this, confirm that the rollers at the front of the sorter are correctly seated on the sorter seat.



5. Remove the rear cabinet panel from the copier and cut out the notch in the cabinet panel.

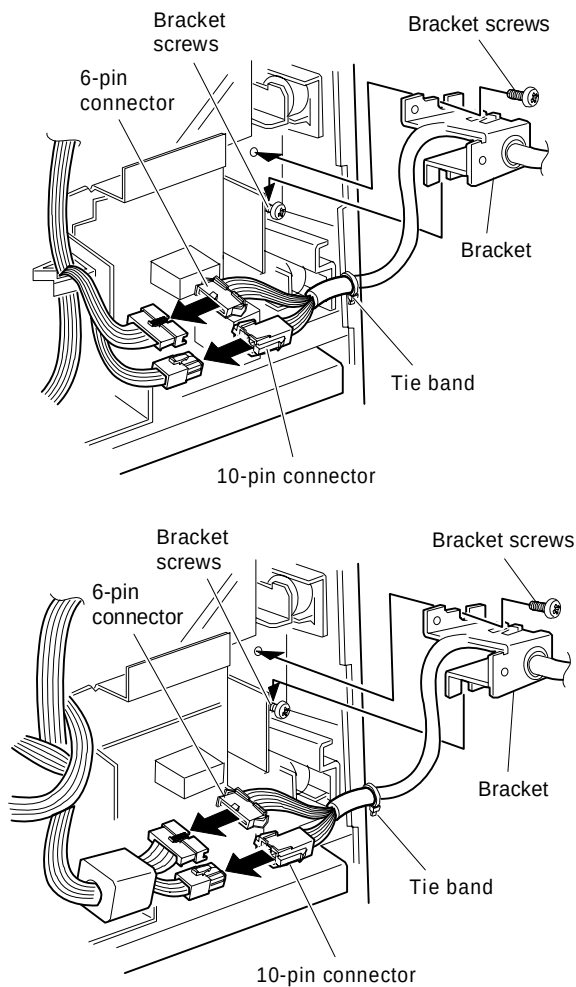
Remove the four screws which secure the rear cabinet panel of the copier to remove the rear cabinet panel.

Cut out the notch (one location) in the cabinet panel.

6. Connect the sorter connectors.

Use the two bracket mounting screws to secure the bracket attached to the sorter harness to the frame of the copier.

Connect the 6-pin and 10-pin sorter connectors to the 6-pin and 10-pin connectors of the copier and insert the tie band into the hole under the board installation part.

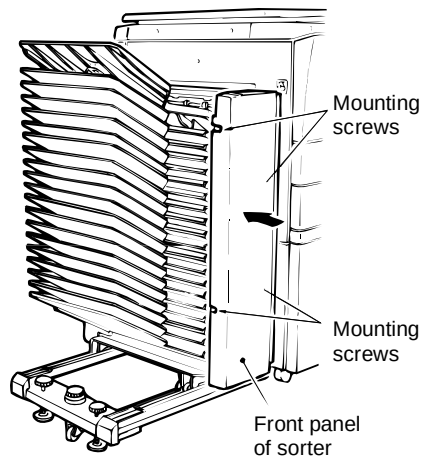


7. Reattach the rear cabinet panel.

Use the four mounting screws to reattach the rear cabinet panel removed in step (4) in its document position.

8. Reattach the front panel of the sorter.

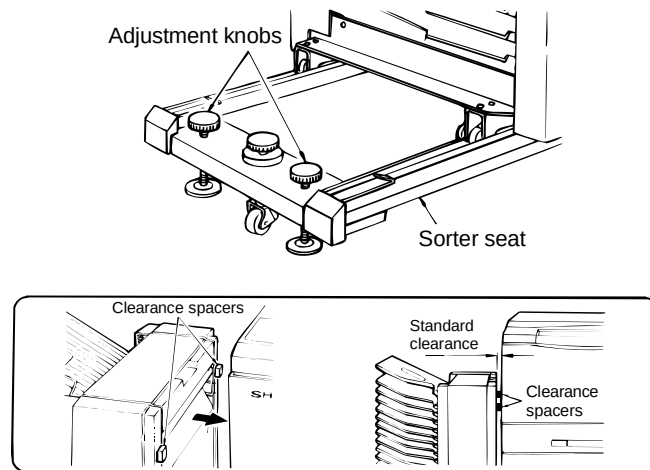
Use the four mounting screws to reattach the front panel of the sorter removed in step (3) in its document position.



9. Adjust the clearance between the sorter and the copier.

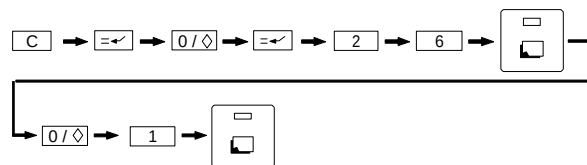
Push the sorter gently against the copier's left cabinet panel. The clearance spacers attached to the back of the sorter will determine the standard clearance between the sorter and the copier. Turn the adjustment knobs on the sorter seat to adjust the clearance so that the spacers are touching the copier.

After adjusting the clearance, remove the clearance spacers.

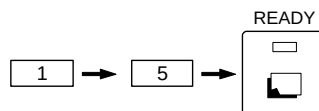


10. Set the mode.

- Operate the keys on the copier to set the mode.



- The copier is equipped with the desk and RADF as standard. If an optional sorter is installed, set to "15".



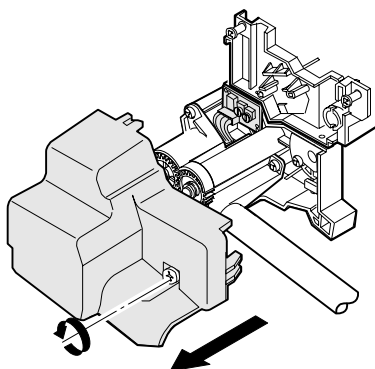
[6] PICTURE QUALITY ADJUSTMENT

1. Initial setting of process control

Whenever the OPC drum or the process control PWB is replaced or the sensor is cleaned or replaced, or before the picture density is adjusted, check and if necessary adjust the process control initial setting.

(1) Adjusting drum marking sensor output

- ① Open the front door.
- ② Remove the process cover on the drum cleaner unit.



- ③ Execute SIM 44-2.

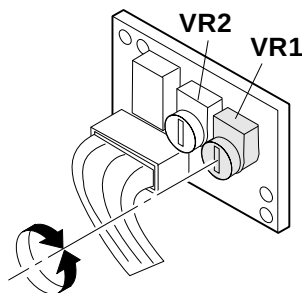
The OPC drum rotates and the drum marking sensor output adjustment value appears on the panel.

SIMULATION NO. 44-2

DM SENSOR ADJUSTMENT
SENSOR RESPONSE:XXX

[PAUSE]KEY:END DISPLAY

- ④ Check to see if the output adjustment value displayed on the panel is 210 ± 30 . If the value is not within the specified range, adjust to the specified range with the VR-1 on the process control PWB.



(2) Adjusting process control sensor (picture density sensor) output

- ① Execute SIM 44-3.

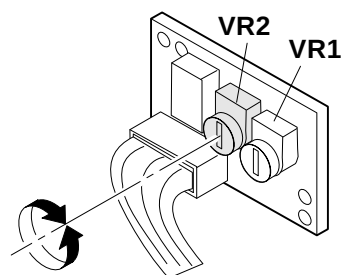
The OPC rotates and the drum marking sensor output adjustment value appears on the panel.

SIMULATION NO. 44-3

ID SENSOR ADJUSTMENT
SENSOR RESPONSE:XXX

[PAUSE]KEY:END DISPLAY

- ② Check to see if the output adjustment value displayed on the panel is 210 ± 30 . If the value is not within the specified range, adjust to the specified range with the VR-2 on the process control PWB.



- ③ Reinstall the process cover.
- ④ Close the front door.

(3) Initializing OPC drum film wear correction counter

The OPC drum rotating time counter counts up for every 20,000 seconds, correcting both the grid voltage and the laser power accordingly. (This operation should be performed only when the OPC drum has been replaced.)

- ① Execute SIM 24-7.

The panel appears like this.

SIMULATION NO. 24-7

DRUM ADJUSTMENT TIME
WOULD YOU MIND IF CLEARING EXECUTE?
1. EXECUTE 2. CANCEL

SELECT WITH TEN KEY

- ② Press the "1" key on the numeric keypad.

(4) Setting process control (picture density) standard value

- ① Execute SIM 44-4.

The LCD panel appears like this.

SIMULATION NO. 44-4

PROCESS CONTROL INITIAL DENSITY SETUP
INITIAL DENSITY[XXX]:XXX
(0~255)

INPUT SETUP VALUE AND PRESS PRINT SW

- ② Press the copy button. Make sure the standard value is 25. If the value is not 25, adjust to 25 with the numeric keypad and press the copy button.
- ③ Release the simulation mode.

2. Picture quality adjustment procedure

(1) Shading correction

Whenever any of the following services is performed, it is necessary to set the shading white board correction value (SIM 63-2).

- Replacement of the copy lamp, copy lamp unit, CCD lens unit, the 2nd and 3rd mirror holder unit, or winding drive gear.
- Replacement or tension adjustment of the MB wire.
- Positional adjustment of the MB-B rail.
- When there occurs in the density of a half-tone area due to shading.

Before setting the shading whiteboard correction value, make sure:

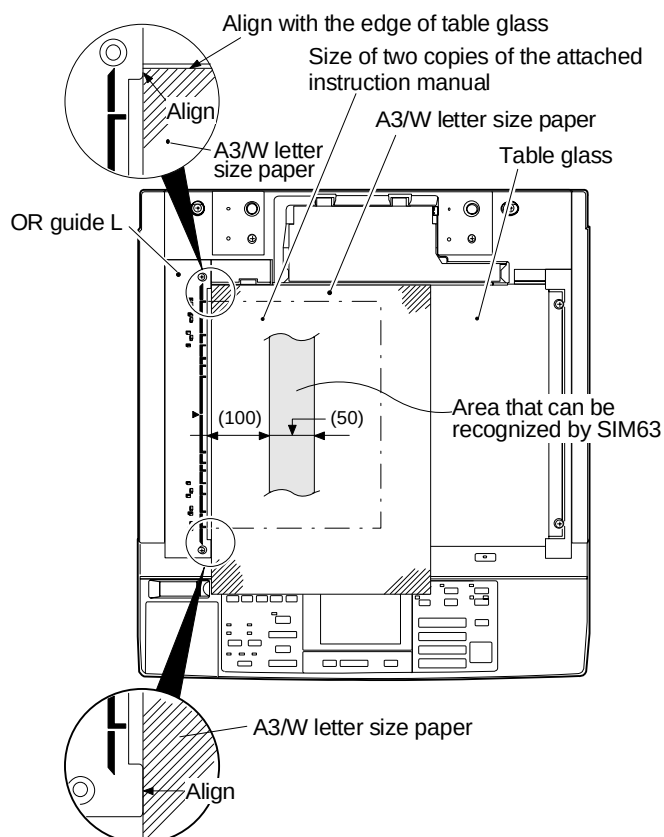
- Each of the 1st to 3rd mirrors is free from dust or contamination.
- The standard whiteboard is clean.
- The table glass is free from dust or contamination.
- The A3 or W letter size paper to be placed on the document table is free from contamination, folds, or wrinkles.

Setting procedure:

- ① Lay 10 sheets of A3 or W letter size paper one on top of another on the document table, as shown in the illustration below. (Do not use recycled paper or color paper.) Use the white paper specified by Sharp.

Points to be kept in mind when carrying out shading correction

- Lay A3 or W letter size paper, aligning their edges with the rear edge of the table glass and the OR guide L alignment position. (See the illustration.)
- When executing a simulation, do not hold down the A3 or W letter size paper with the RADF.
- To securely hold in place, lay 2 copies of the Instruction Manual on the sheets of A3 or W letter size paper to prevent them from lifting.



- ② Execute SIM 63-2.

SIMULATION No.63-2

SHADING WHITE BOARD CORRECTION
WITH A WHITE PAPER ON THE ORIGINAL
TABLE, TURN ON THE PRINT SWITCH.

PRINT SWITCH: EXECUTE SIMULATION

SIMULATION No.63-2

SHADING WHITE BOARD CORRECTION
CORRECTION VALUE IS SETTING.

[PAUSE]KEY: SUSPENDED ACTIVATION

SIMULATION No.63-2

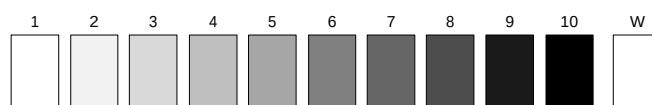
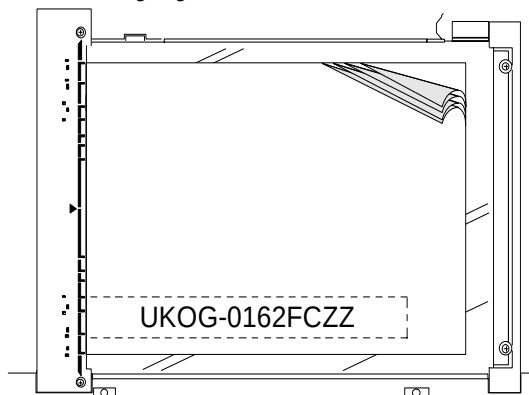
SHADING WHITE BOARD CORRECTION
CORRECTION IS COMPLETED.
CORRECTION VALUE: XXX

[PAUSE]KEY: END DISPLAY

About 1 ~ 4 min.

(2) Setting test chart

- ① Lay a test chart (UKOG-0162FCZZ) on the document table at the front frame side.
- ② Lay 4 to 5 sheets of white paper (specified by Sharp), more than 120 mm wide and about 420 mm long, one on top of another on the test chart, aligning their centers.



Test chart comparison table

UKOG-0162FCZZ DENSITY No.	1	2	3	4	5	6	7	8	9	10	W
UKOG-0089CSZZ DENSITY No.	0.1		0.2		0.3				0.5	1.9	0
KODAK GRAY SCALE		1		2		3		4		19	A

SHARP CORPORATION
MADE IN JAPAN

(3) Adjusting copy density

Execute SIM 46-01. After warming up, the ready lamp comes on and at the same time, the current exposure level is displayed on the panel.

```

AE_3.0 [ XXX ]
N_3.0  [ XXX ]
P_3.0  [ XXX ]
SFTP_3.0 [ XXX ]
30~170

```

AE: Automatic mode
 N: Manual mode
 P: Photo mode
 SFTP: Soft focus photo mode

The copy density mode can be selected by using the copy density key. The value of current copy density mode is displayed in reverse video in brackets.

A. Adjusting copy density in the manual/Photo/Soft focus photo modes

- ① Select the picture quality mode (ex. manual mode) in which you want to adjust the copy density, with the copy density key.

```

AE_3.0 [ XXX ]
N_3.0  [ XXX ]
P_3.0  [ XXX ]
SFTP_3.0 [ XXX ]
30~170

```

- ② Make a copy.

Make sure that the "4" of the Sharp test chart UKOG-0162FCZZ is copied and the "3" is not copied.

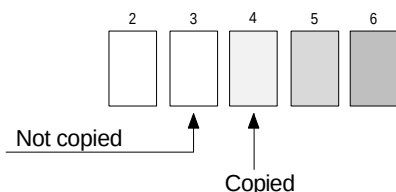
(for the UKOG-0089CSZZ, the "0.3" should be copied and the "0.2" not copied.)

When too light:

Increase the value displayed on the COPIES MADE display.

When too dark:

Decrease the value displayed on the COPIES MADE display.



The value can be set in the range of 30 ~ 170. The greater the set value is, the darker the density is.

- ③ Press the copy density key to select the mode to be adjusted next, and perform the same adjustment procedures.

(When the above set value is entered with exposure 3, the other exposure (density) set values are automatically set.)

B. Auto mode copy density adjustment

- ① Select the auto mode with the copy density key.

```

AE_3.0 [ XXX ]
N_3.0  [ XXX ]
P_3.0  [ XXX ]
SFTP_3.0 [ XXX ]
30~170

```

- ② Make a copy.

Check that "4" of Sharp test chart (UKOG-0162FCZZ) is copied and "3" is not copied.

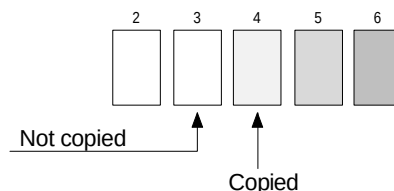
("0.3" of UKOG-0089CSZZ is copied and "0.2" is not copied.)

When too bright:

Increase the set value displayed on the copy quantity display.

When too dark:

Decrease the set value displayed on the copy quantity display.



The value can be set in the range of 30 ~ 170. The greater the set value is, the darker the density is.

When the copy density is within the reference range, the image adjustment is completed.

Note 1: SIM 46-2 allows to set the exposure level adjustment value in each mode individually. (Refer to the section of simulations.)

(4) Image mode selection

Each image mode has two image expressions, which can be selected with SIM 26-27.

When SIM 26-27 is executed, the following display is shown to allow selection of 1 and 2 for each image mode.

SIMULATION NO. 26-27

```

IMAGE DENSITY MODE SETTING
AUTO  [X]:_1.(PEN)  2.(ORG)
MANUAL [X]:_1.(PEN)  2.(ORG)
PHOTO  [X]:_1.(PHOTO1) 2.(PHOTO2)
SOFT_P [X]:_1.(SOFT_P1) 2.(SOFT_P2)

```

[→]KEY:MOVE PRINT SW:EXECUTE

Here are the characteristics of picture quality in each mode. Use them as a rough guide.

(All the settings of picture quality are factory set for 1.)

	1	2
Auto Manual	Reproduction of characters and fine lines Enhancement of contours	Calmness
Photo	Calmness	Enhancement of contours Reproduction of characters
Soft focus photo	Rough patterns High gray scale level	Fine patterns High density

The settings "1" and "2" can be selected according to the purpose.

(5) Selecting gray scale level

In SIM 46-7, it is possible to set the gray scale level in each picture quality mode.

Execute SIM 46-7. The gray scale level adjustment value for each picture quality mode appears. (The setting in each mode is factory set for 10.)

SIMULATION NO. 46-7

```

TONE ADJUSTMENT SETTING (COPY)
AUTO    AE_3.0 (1~20) [XX]:XX
MANUAL  N_3.0 (1~20) [XX]:XX
PHOTO   P1_3.0 (1~20) [XX]:XX
SOFT_P  SFT_3.0 (1~20) [XX]:XX

```

[→]KEY:MOVE PRINT SW:EXECUTE

The gray scale level is decreased by increasing the setting and increased by reducing the setting. The adjustment range from 1 to 20.

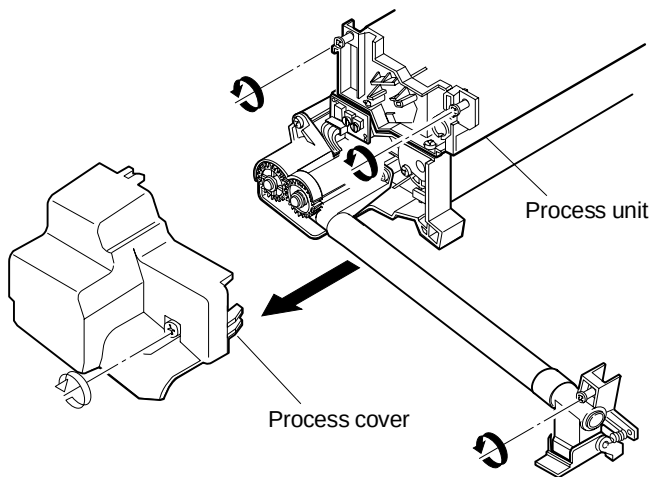
[7] DISASSEMBLY AND REASSEMBLY

Remove the printer cable from the connector before trying to service or repair a digital copier with an optional printing function, with its rear cabinet removed.
If the copier is serviced or repaired with the printer cable connected, the printer could start operating due to a command that might be accidentally sent from the personal computer, thus causing an accident.

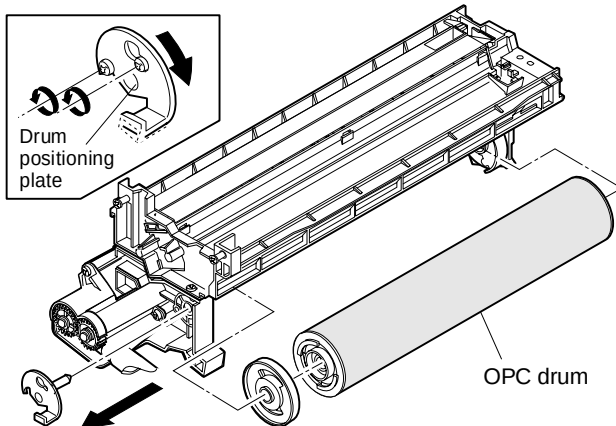
1. Process unit

(1) OPC drum

- ① Remove the process cover and detach the process unit from the machine.

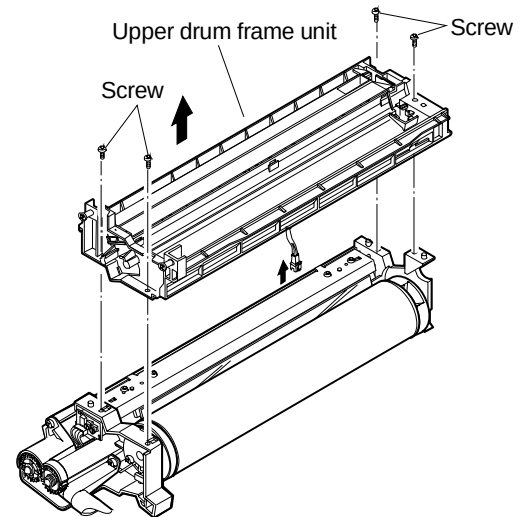


- ② Loosen the screw securing the drum positioning plate FAS.
- ③ Turn the drum positioning plate FS clockwise to remove.
- ④ Remove the drum.

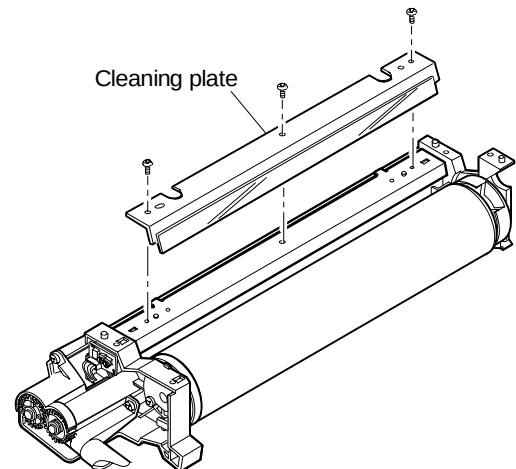


(2) Cleaning plate

- ① Remove the process unit from the machine.
- ② Remove the upper drum frame unit from the process unit.

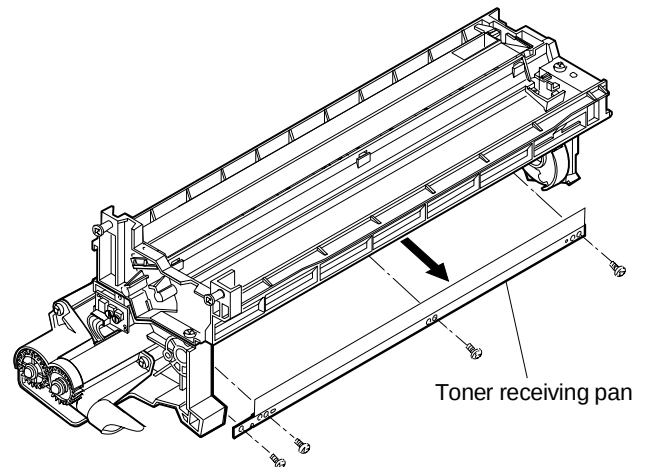


- ③ Remove the cleaning blade.



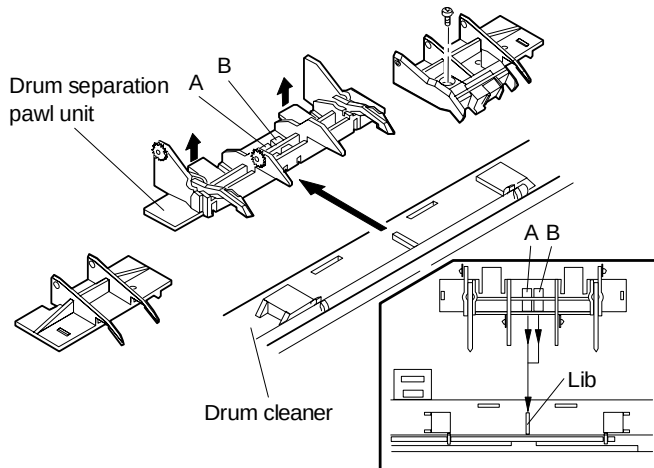
(3) Toner receiving pan

- ① Remove the process unit from the machine.
- ② Remove the toner receiving pan.



(4) Separation pawl

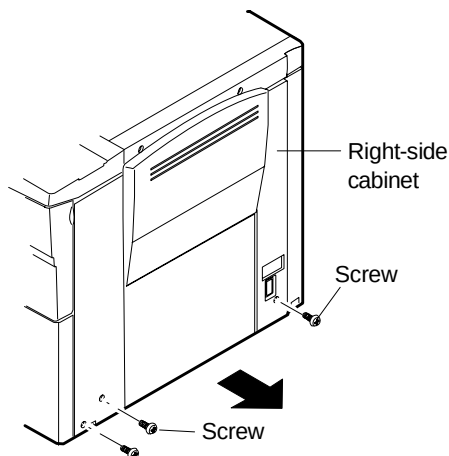
- ① Remove the process unit from the machine.
- ② Remove the separation pawl unit from the process unit.
- ③ Remove the separation pawl unit (R).



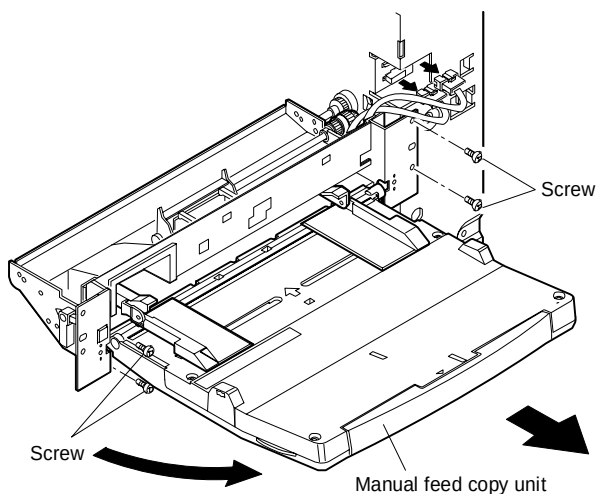
2. Manual feed copy unit

(1) Separation roller

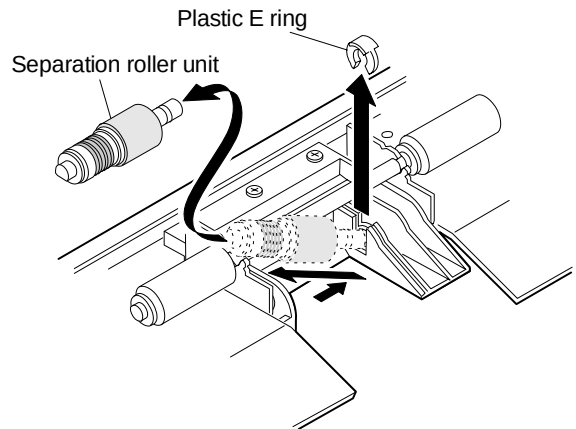
- ① Remove the right-side cabinet from the machine.



- ② Remove the manual feed copy unit.

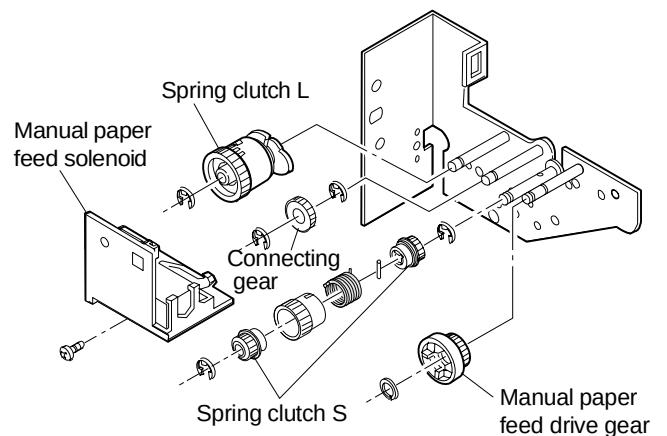


- ③ Remove the reverse roller unit.

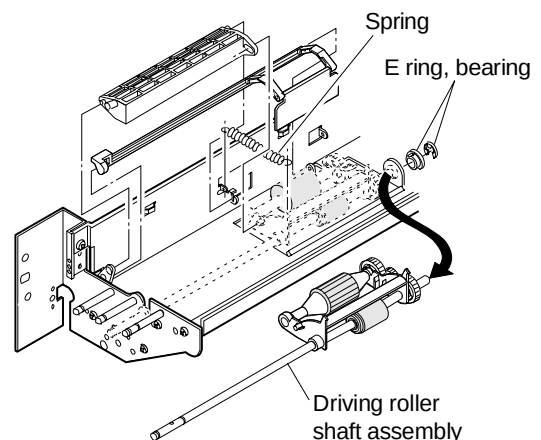


(2) Pick-up roller

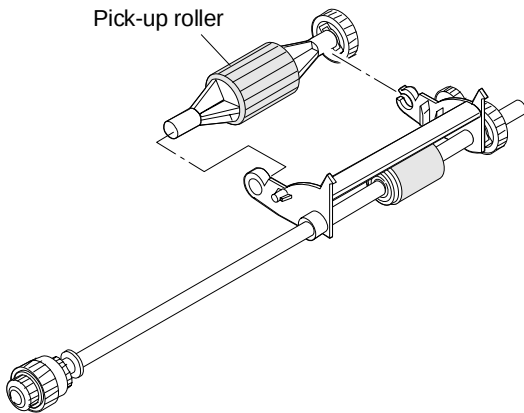
- ① Remove the manual feed tray unit.
- ② Remove the manual paper feed solenoid.
- ③ Remove the connecting gear.
- ④ Remove the manual paper feed drive gear.
- ⑤ Remove the small spring clutch.



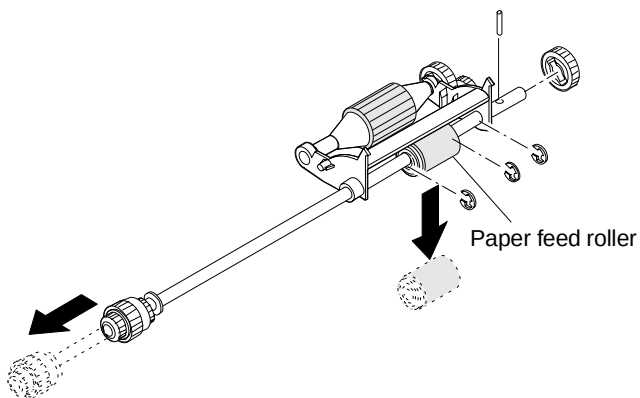
- ⑥ Remove the spring.
- ⑦ Remove the bearing from the front side of the drive roller shaft assembly.
- ⑧ Remove the drive roller shaft assembly.



- ⑨ Remove the pick-up roller from the drive roller shaft assembly.



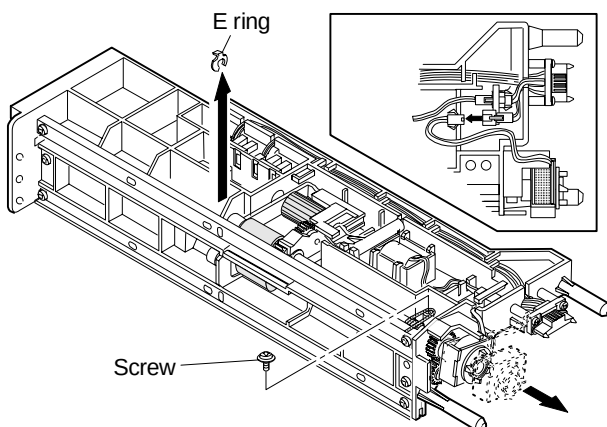
- ⑩ Remove the paper feed roller from the drive roller shaft assembly.



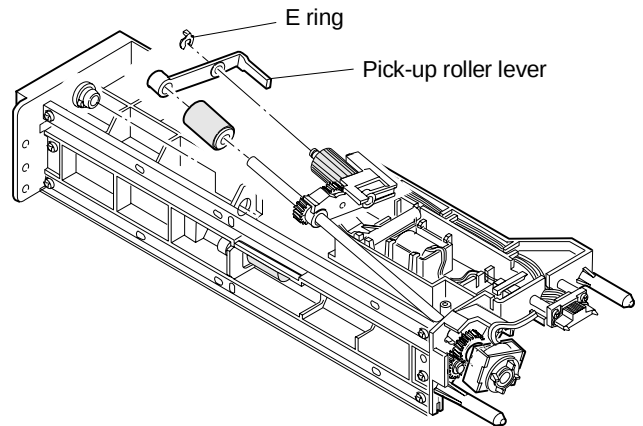
3. Paper feed unit

(1) Paper feed roller and pick-up roller

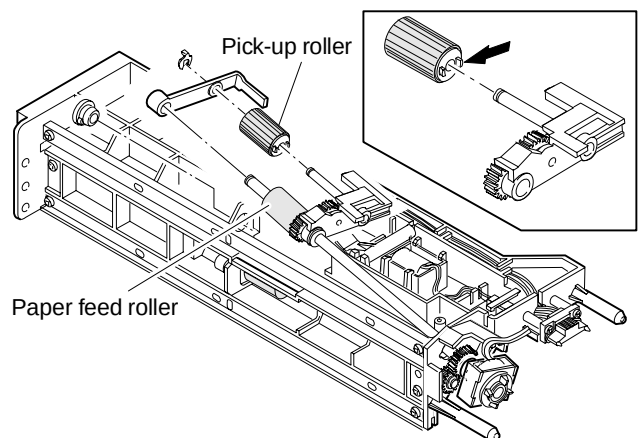
- ① Remove the spring clutch harness.
- ② Remove a screw and the E-ring.
- ③ Displace the shaft toward the clutch until the pick-up roller lever clears the frame.



- ④ Remove the E ring.
- ⑤ Remove the pick-up roller lever.



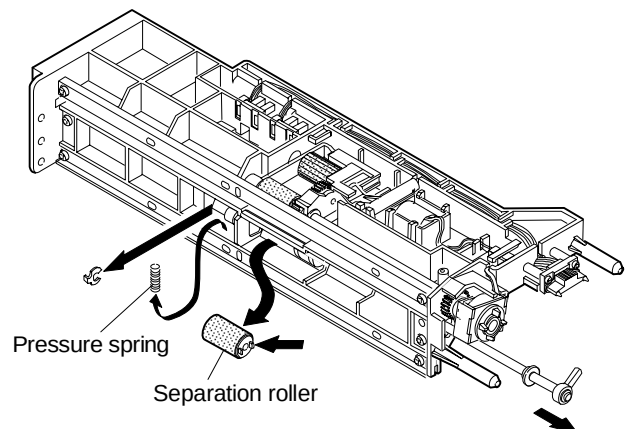
- ⑥ Remove both the paper feed roller and the pick-up roller.



Note: The paper feed roller should be installed so that the one-way clutch is pointed toward the rear frame (clutch side).
The pick-up roller should be installed so that the projection is pointed toward the rear frame.

(2) Separation roller

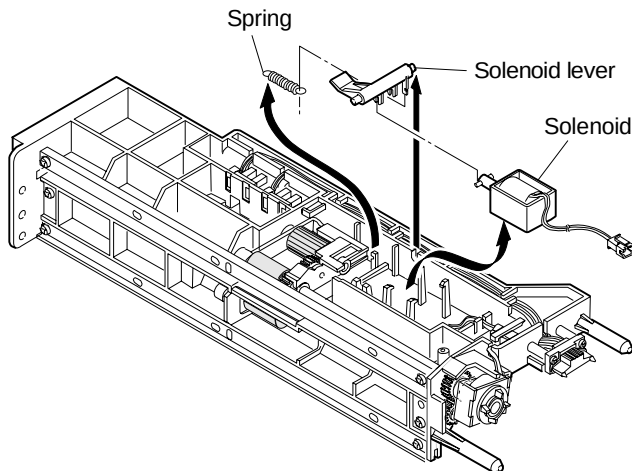
- ① Remove the pressure spring.
- ② Displace the shaft (with the gear).
- ③ Remove the separation roller.



Note: The reverse roller should be installed so that the projection is pointed to toward the rear frame.

(3) Solenoid

- ① Remove the spring. Remove the solenoid lever.
- ② Remove the solenoid.



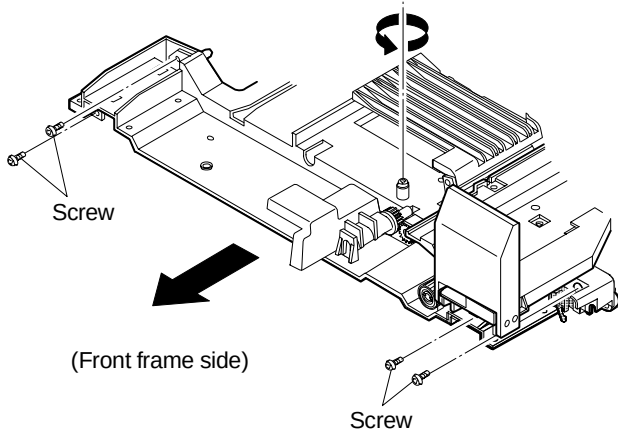
Note: The solenoid should be reinstalled so that the harness is positioned upward.

4. Transport base unit

✱ Before detaching the transport base unit, remove the developer tank, front cabinet, process unit and ADU unit.

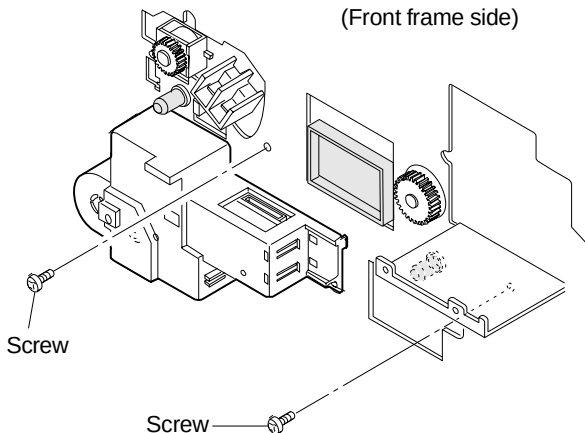
(1) Suction transport belt

- ① Remove the transport base unit from the machine.

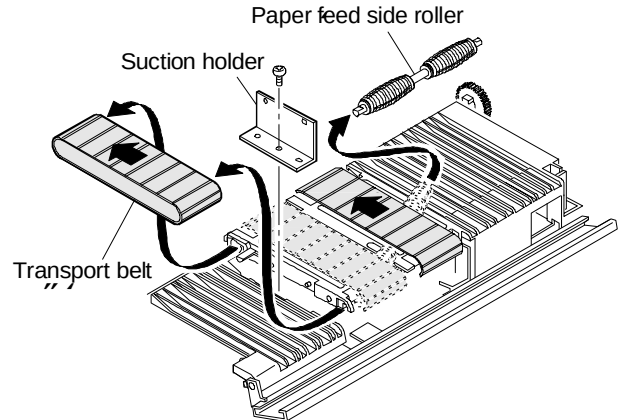


(Front frame side)

(Front frame side)

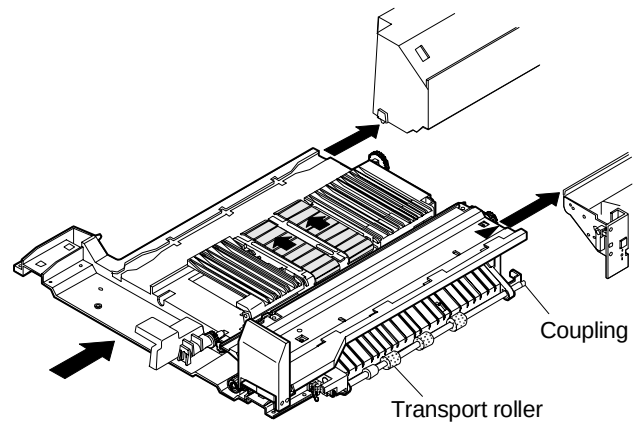


- ② Remove the paper feed-side roller toward the direction in which the paper is fed.
- ③ Remove the suction holder.
- ④ Displace the suction transport belt toward the front frame and remove.



Note: When reinstalling the transport base unit:

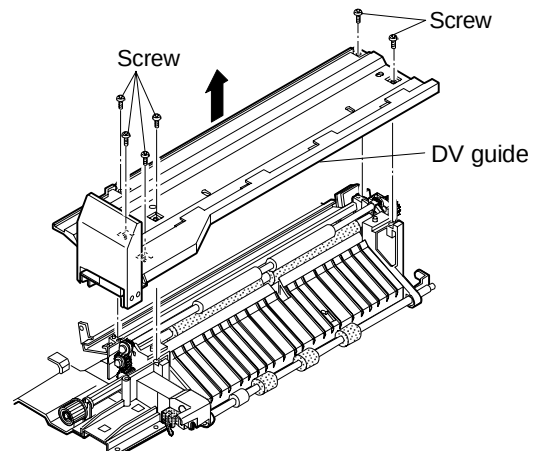
- ① Make sure the arrow on the DV guide, the left groove in the rail transport base of the multiple paper feed section, and the marking on the fusing UN cover are aligned with each other.



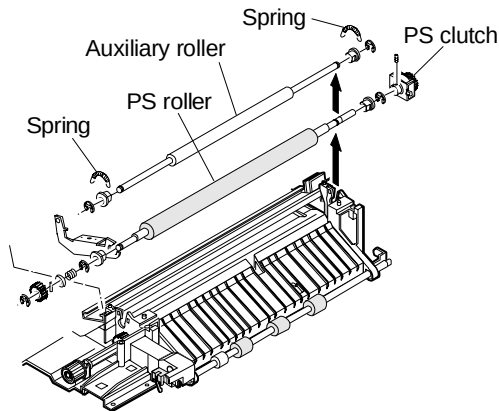
- ② Make sure the transport roller coupling is securely engaged in the coupling of the copier. If properly engaged, the roller can be rotated smoothly by hand. If not engaged properly, the roller won't rotate smoothly or noise can be heard.

(2) PS roller

- ① Remove the transport base unit from the machine.
- ② Remove the DV guide.



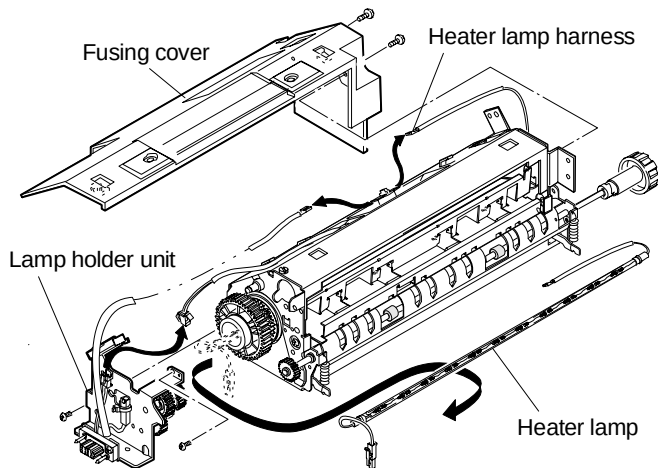
- ③ Remove the spring and auxiliary roller.
- ④ Remove the PS roller. Loosen the set screw.
- ⑤ Remove the front frame-side gear and remove the bearing.
- ⑥ Remove the PS roller.



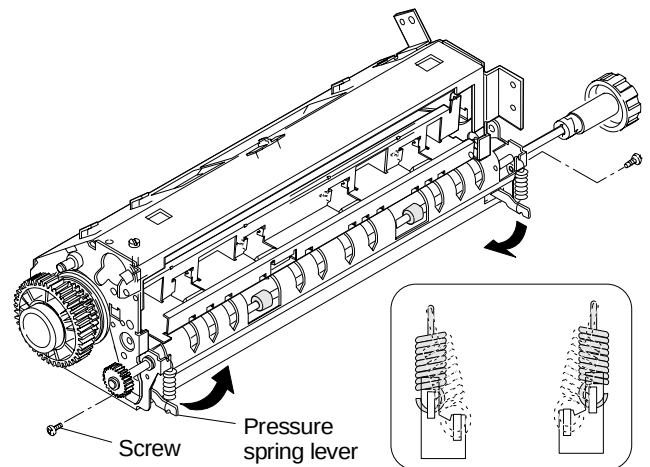
5. Fusing unit

(1) Upper and lower heat rollers

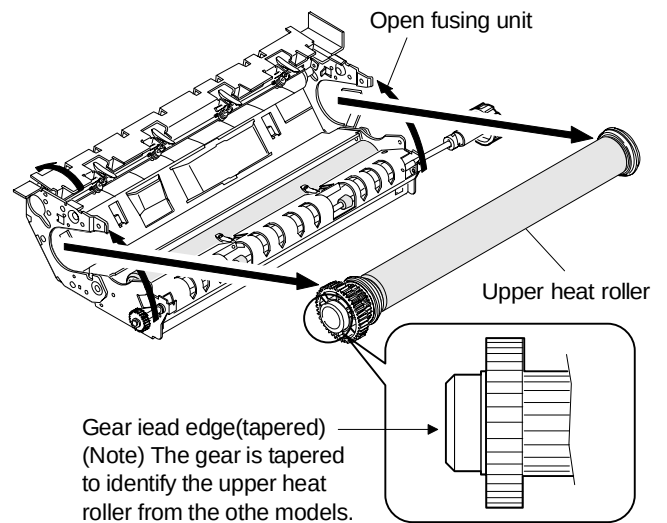
- ① Remove the fusing cover and remove the front and rear heater lamp harness connectors.
- ② Remove the thermistor connector and thermostat connector.
- ③ Remove lamp holder unit. Remove the heater lamp.



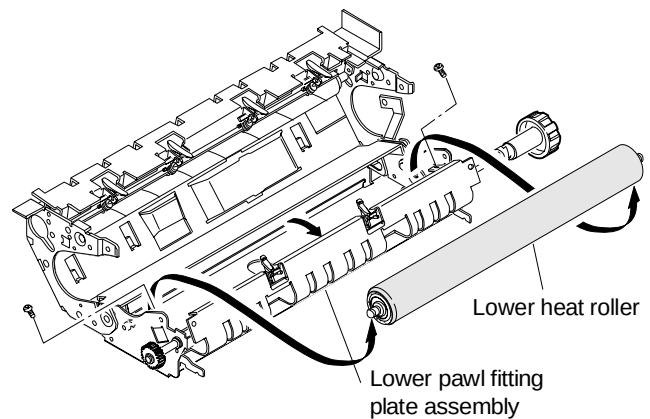
- ④ Displace the pressure spring lever and release the fusing pressure.
- ⑤ Remove the screws securing the upper and lower units.



- ⑥ Open the fusing unit.
- ⑦ Remove the upper heat roller assembly.



- ⑧ Open the lower pawl fitting plate assembly.
- ⑨ Remove the lower heat roller assembly.

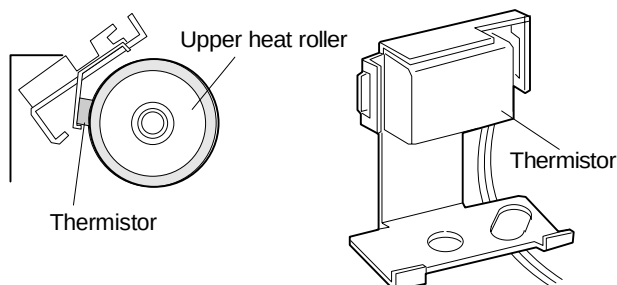


[Note for reinstalling upper and lower heat rollers]

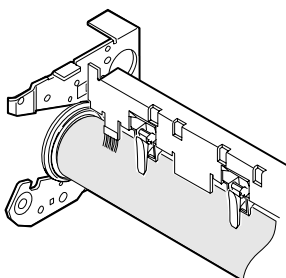
When reinstalling the lower heat roller, hook the pawl on the lower pawl fitting plate before closing it. Return it in the document position after closing.

(Thermistor)

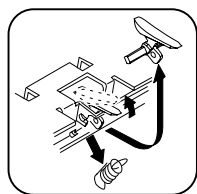
- Make sure the middle of the thermistor is in contact with the heat rollers.
- Remove any foreign matter from the thermistor surface with alcohol.

**(Discharge brush)**

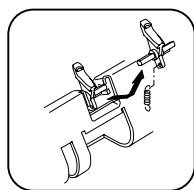
Make sure the discharge brush is in contact with the upper heat roller.

**(2) Upper and lower separation pawls**

- ① With the fusing unit opened, remove the upper and lower separation pawls.



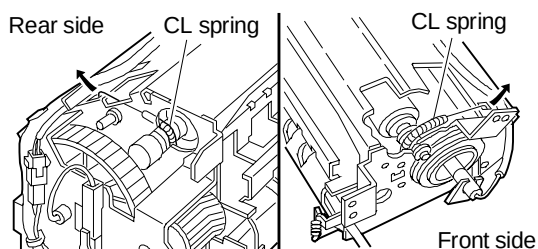
Upper separation pawl



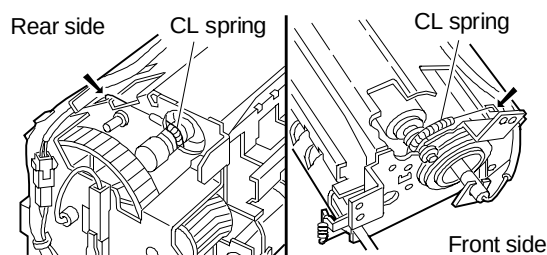
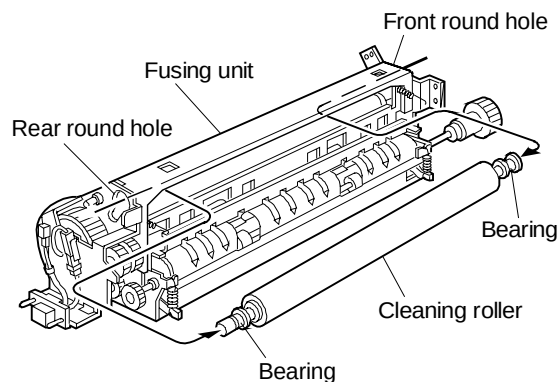
Lower separation pawl

(3) Upper cleaning rollers

- ① Remove the front and rear CL springs.
- ② Remove the front CL bearing and move it rearward.



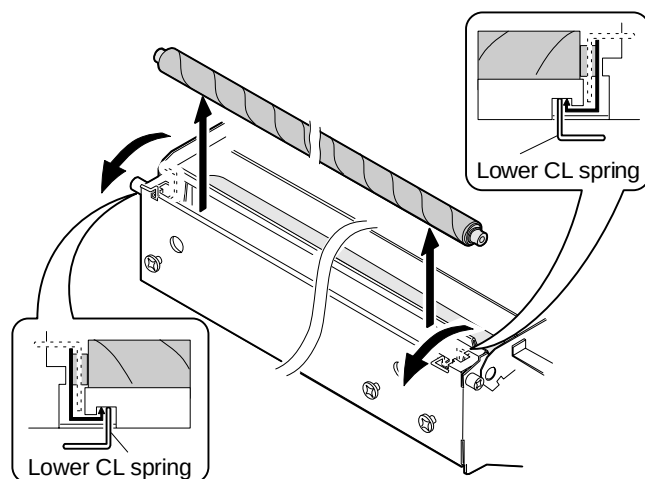
- ③ Remove the upper cleaning roller.



Note: When reinstalling the upper cleaning roller, make sure the CL spring holds the bearing in place.

(4) Lower cleaning rollers

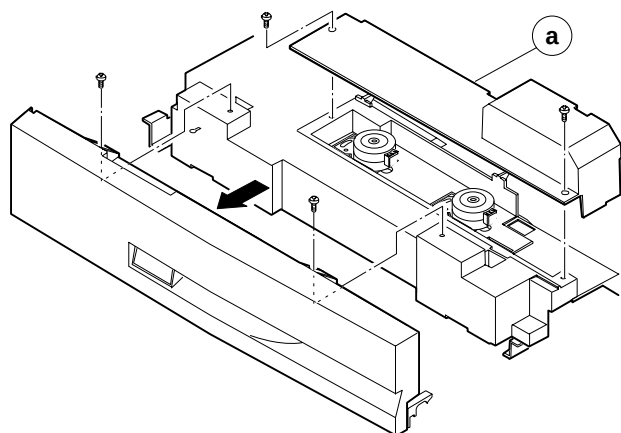
Hook the front and rear lower cleaning rollers on the frame groove, to release the compression pressure.



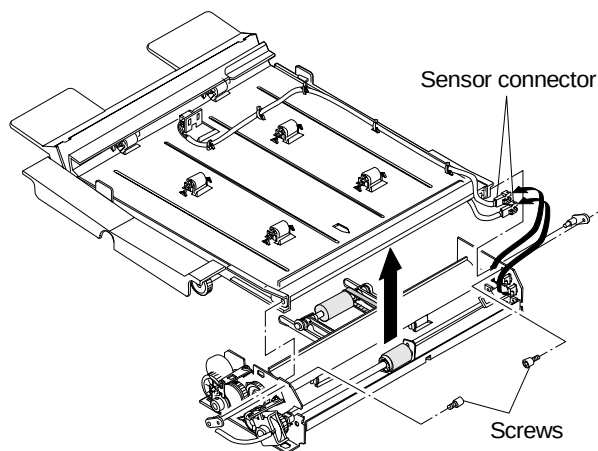
6. Auto duplex unit

(1) Pick-up roller

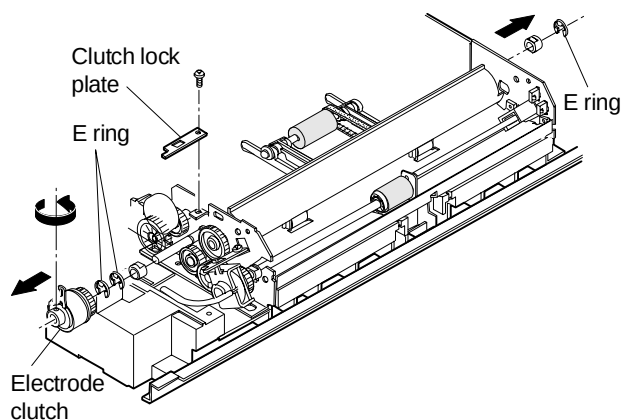
- ① Pull out the duplex copy tray.
- ② Remove the ADU front cover and front cover **a**



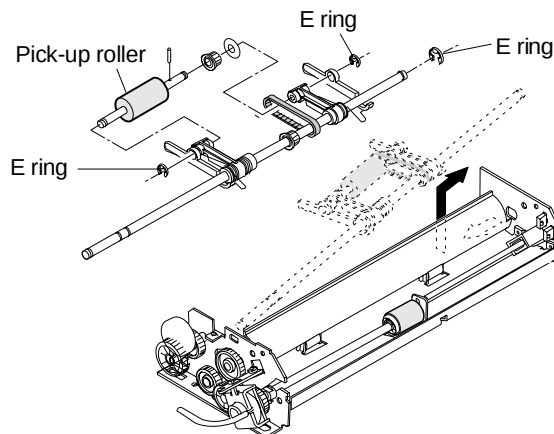
- ③ Remove two sensor connectors.
- ④ Remove the screw securing fulcrum hold plate.
- ⑤ Remove the upper and lower transport paper guides from the ADU.



- ⑥ Remove the clutch lock plate.
- ⑦ Loosen the set screw and remove the clutch.
- ⑧ Remove the pick-up roller drive shaft.

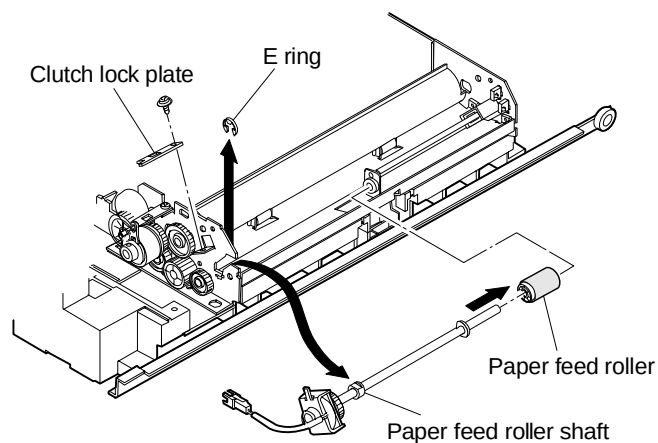


- ⑨ Push down the spring holder and remove the pick-up roller unit from the ADU.
- ⑩ Remove the E ring from the side of the pick-up roller arm at the rear frame.
- ⑪ Remove the E ring from the side of the paper holding arm (at each of the front and rear frames), and remove the pick-up roller.



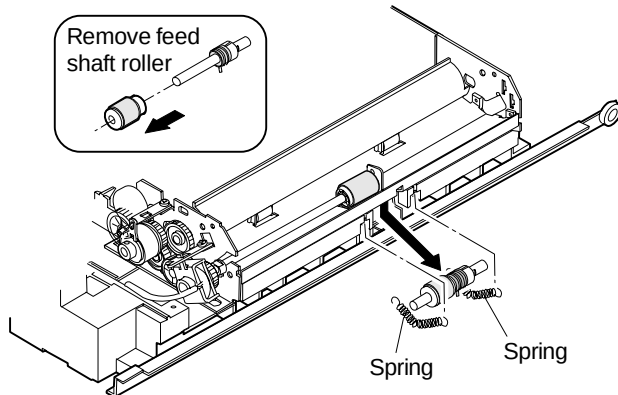
(2) Paper feed roller

- ① Remove the upper and lower transport paper guides from the ADU.
- ② Remove the clutch lock plate and remove the E ring at the clutch side.
- ③ Displace the bearing and remove the paper feed roller drive shaft toward the front frame.
- ④ Remove the paper feed roller.



(3) Separation roller

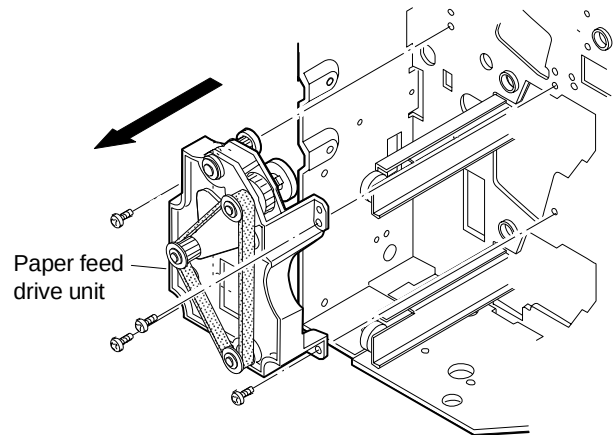
- ① Remove the upper and lower paper guides from the ADU.
- ② Remove the separation roller compression spring. Remove the separation roller.



	Front F	Rear F
Spring color	Black	White
Spring force	Strong	Weak

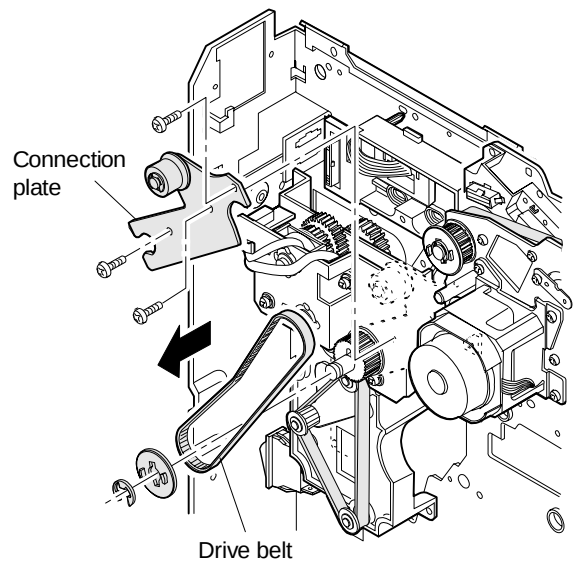
Note: The clutch springs should be reinstalled and secured so that the projection is pointed downward. (Do not point it toward the transport path.)

- ④ Remove the paper feed drive unit.



(2) Paper feed speed-change unit

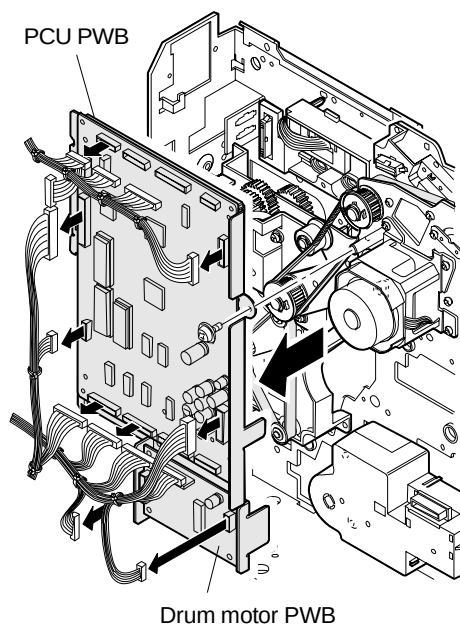
- ① Remove the rear cabinet from the machine.
- ② Remove the main PWB unit from the machine.
- ③ Remove the connection plate.
- ④ Remove the E ring securing the paper feed speed-change unit pulley. Remove the drive belt.



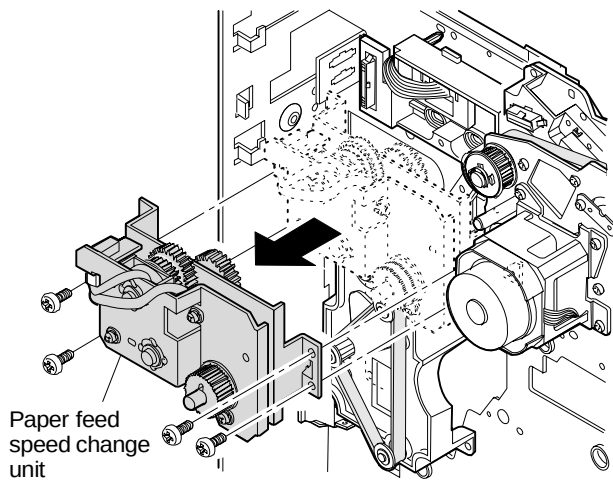
7. Main components at rear frame side

(1) Paper feed drive unit

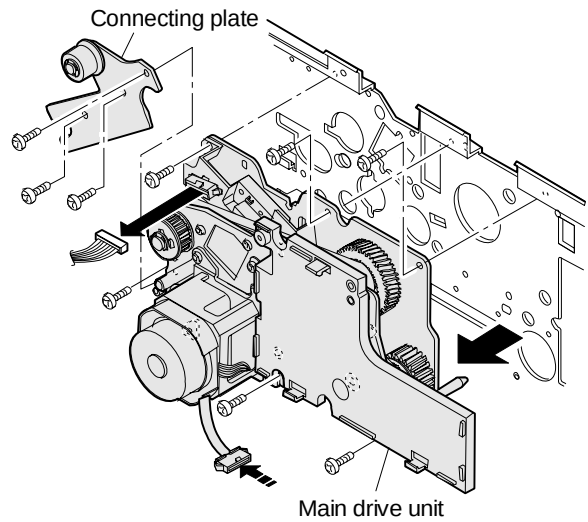
- ① Remove the cabinet from the machine.
- ② Remove the PCU PWB, drum motor PWB, and connectors.
- ③ Remove the PCU PWB unit (including drum motor PWB) from the machine.



- ⑤ Remove the speed-change clutch connector and paper feed speed-change unit.

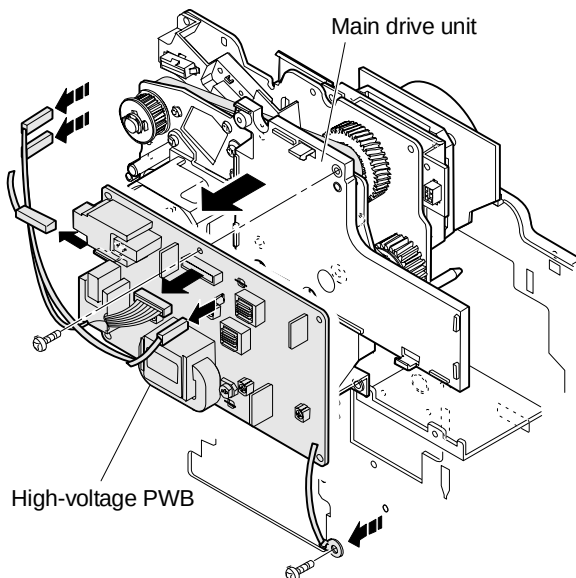


- ⑦ Remove the main drive unit.



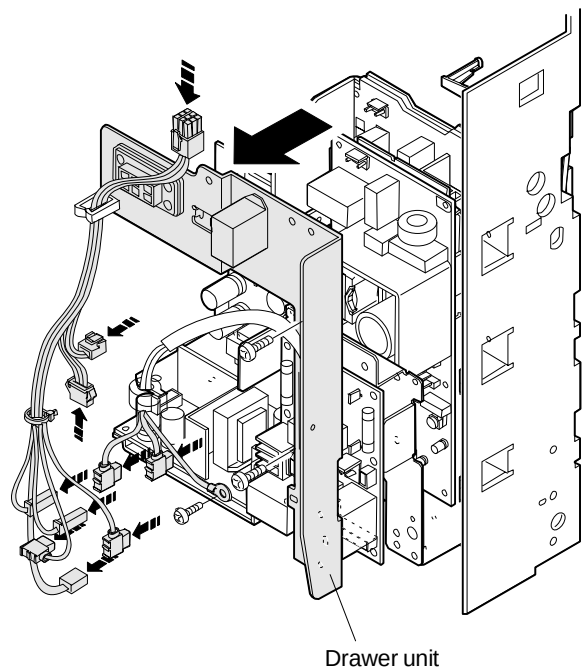
(3) Main drive unit

- ① Remove the rear cabinet from the machine.
- ② Remove the main PWB unit from the machine.
- ③ Remove the connecting plate.
- ④ Remove the E ring securing the paper feed speed-change unit pulley and remove the drive belt.
- ⑤ Remove the high-voltage PWB connectors. Remove the GND harness from the copier chassis.
- ⑥ Remove the high-voltage PWB from the main drive unit.



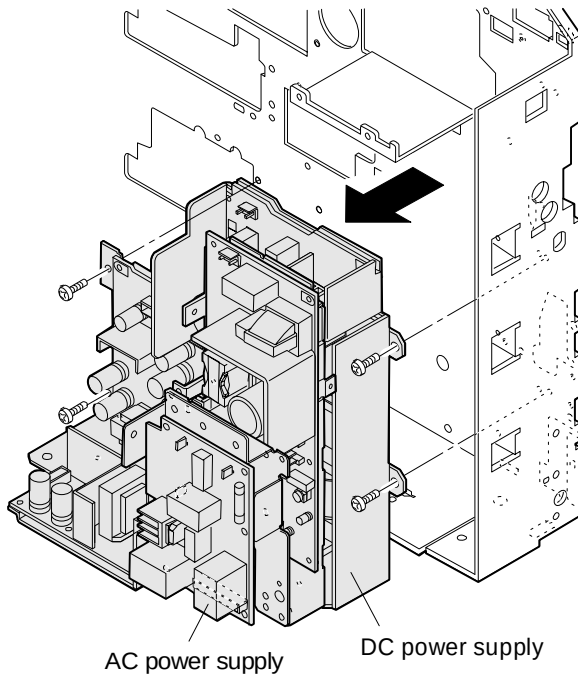
(4) DC power supply PWB

- ① Remove the rear cabinet from the machine.
- ② Remove the right-side screws of the left cabinet.
- ③ Remove the fusing drawer unit and connector. Remove the drawer unit.



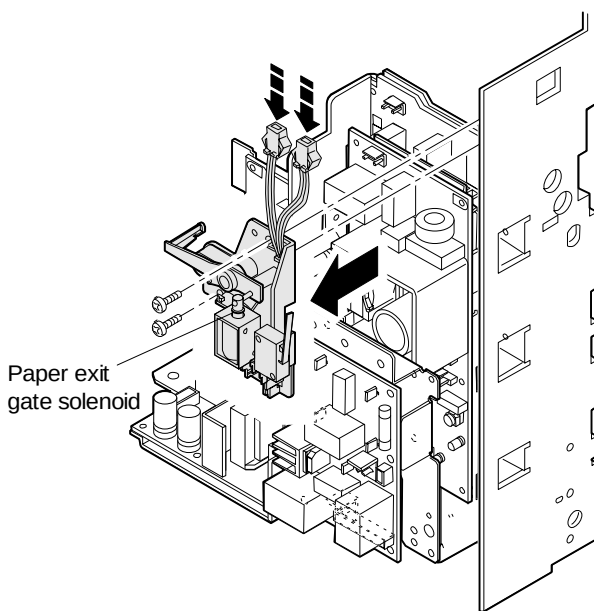
Note: The fusing drawer unit should be reinstalled with the fusing unit removed.

- ④ Remove the AC and DC power supply PWB.



(5) Paper exit gate solenoid

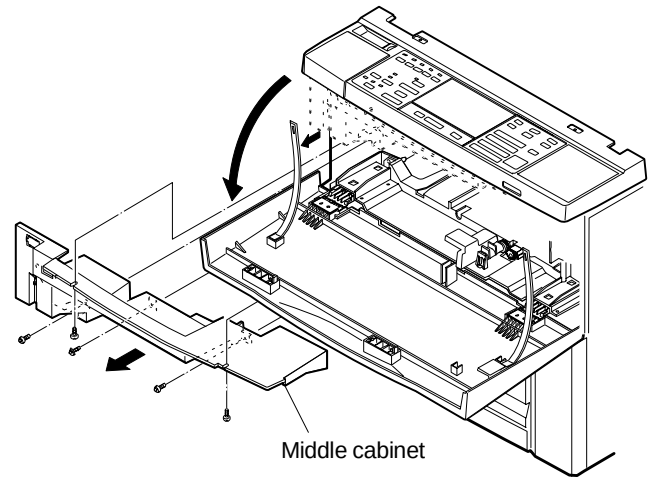
- ① Remove the rear cabinet from the machine.
- ② Remove the right-side screws of the left cabinet.
- ③ Remove the fusing drawer unit.
- ④ Remove the paper exit gate solenoid.



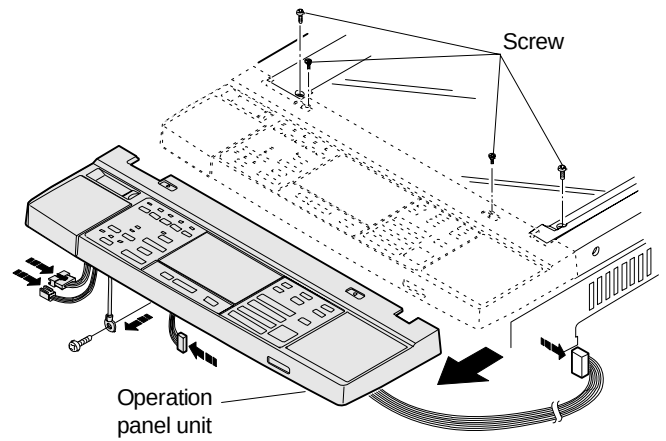
8. Operation panel unit/Document size sensor PWB (light reception side)

(1) Operation panel

- ① Open the front cabinet of the machine and remove the middle cabinet.

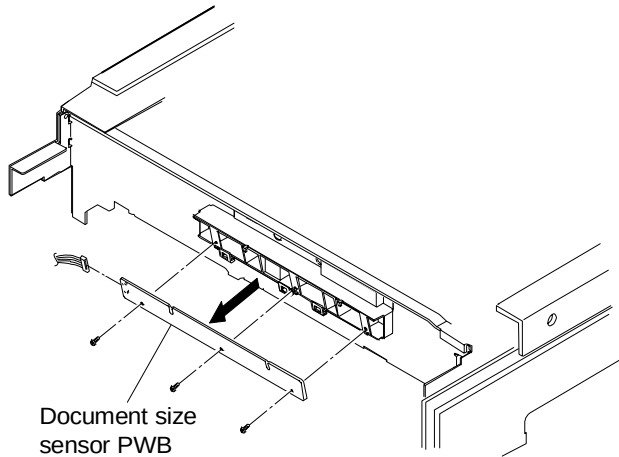


- ② Remove the screws securing the glass holding plate at its front right and left.
- ③ Remove the screws securing the magnet catch plate.
- ④ Remove the operation panel unit.



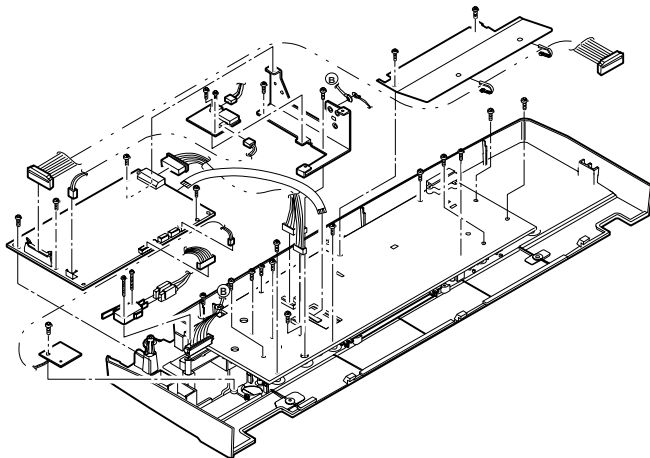
(2) Document size sensor PWB (light reception side)

- ① Remove the operation panel unit.
- ② Remove the Document size sensor PWB.

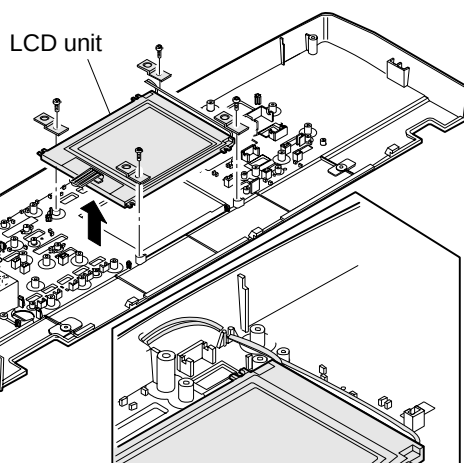


(3) LCD unit

- ① Remove the LCD control PWB from the operation panel unit.
- ② Remove the angle securing the LCD control PWB, from the operation panel unit.
- ③ Remove the control PWB from the operation panel unit.



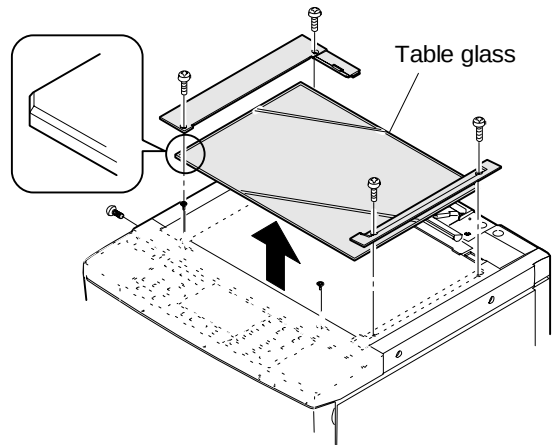
- ④ Remove the LCD unit.



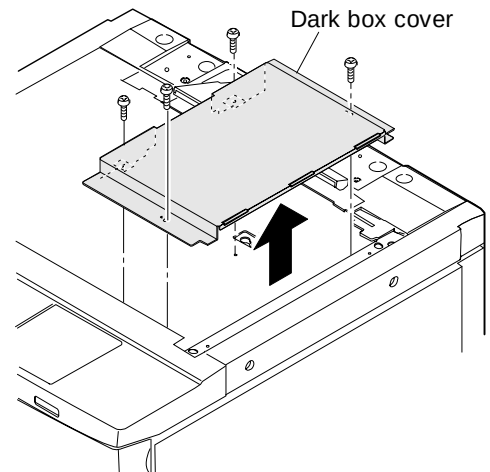
9. Optical unit

(1) Copy lamp unit

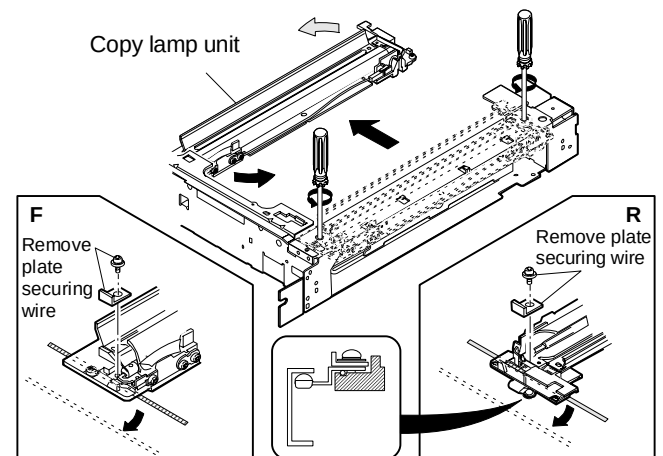
- ① Remove the right and left document guides and table glass.



- ② Remove the dark box cover.

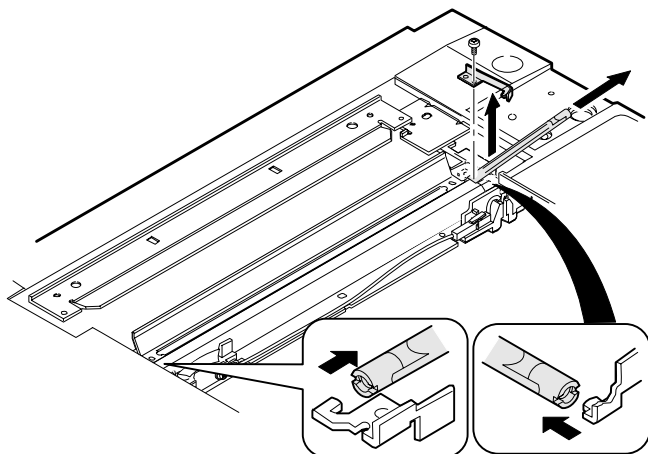


- ③ Remove the wire fixing plates at the front and rear frames of the copy lamp unit. Remove the side plates (front and rear).
- ④ Remove the copy lamp unit by twisting it.

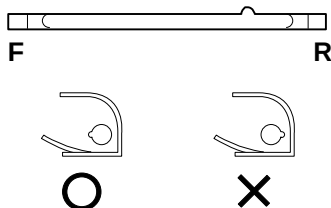


(2) Copy lamp

- ① Remove the right and left document guides and remove the table glass.
- ② Displace the copy lamp unit to the notched part at the rear of the upper cabinet.
- ③ Remove the copy lamp.



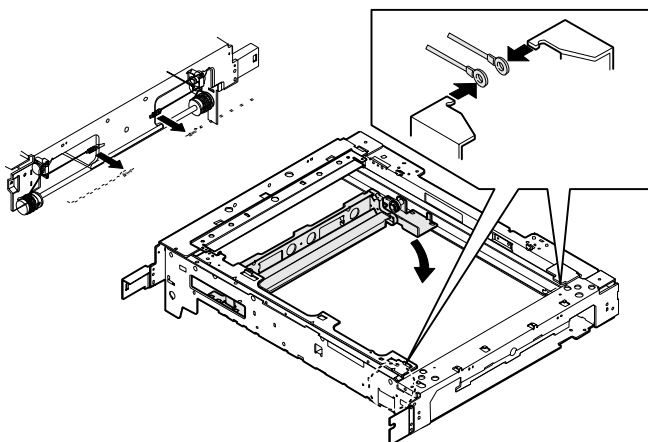
Note: When reinstalling the copy lamp, use caution not to have the wrong direction.



The copy lamp should be reinstalled as shown above, so that the copy lamp projection is located close to the R side.

(3) 2nd and 3rd mirror base unit

- ① Remove the right and left document guides and remove the table glass.
- ② Remove the mirror base wire from the 2nd and 3rd mirror base unit.
- ③ Move the 2nd and 3rd mirror base unit to the square hole in the optical base and twist it to remove.



How to stretch the mirror base wire

(Check the following in advance.)

Check the wire winding pulley stopping position.

Check the wire winding pulleys (front/rear) have a wire groove in the same position.

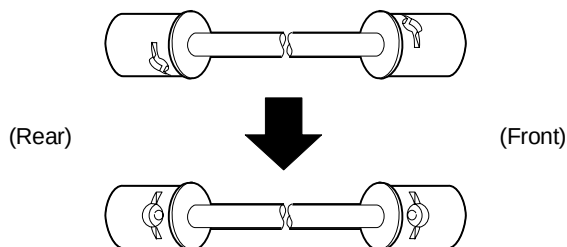
(Visual checks)

If the two wire grooves are much different in their level, loosen two set screws securing the pulleys and align the position of the two wire winding pulleys (front/rear).

Tighten the two set screws securing the pulleys.

- ① Hook the mirror base wire holder on the optical base hook.
- ② Apply the mirror base B against the mirror base positioning plate. Pass the front and rear mirror base wires through the outside grooves in the mirror base B pulley.
- ③ Pass the mirror base wires through the grooves in the paper feed pulley.
- ④ Pass the mirror base wires under the mirror base B and wind them on the winding pulleys.

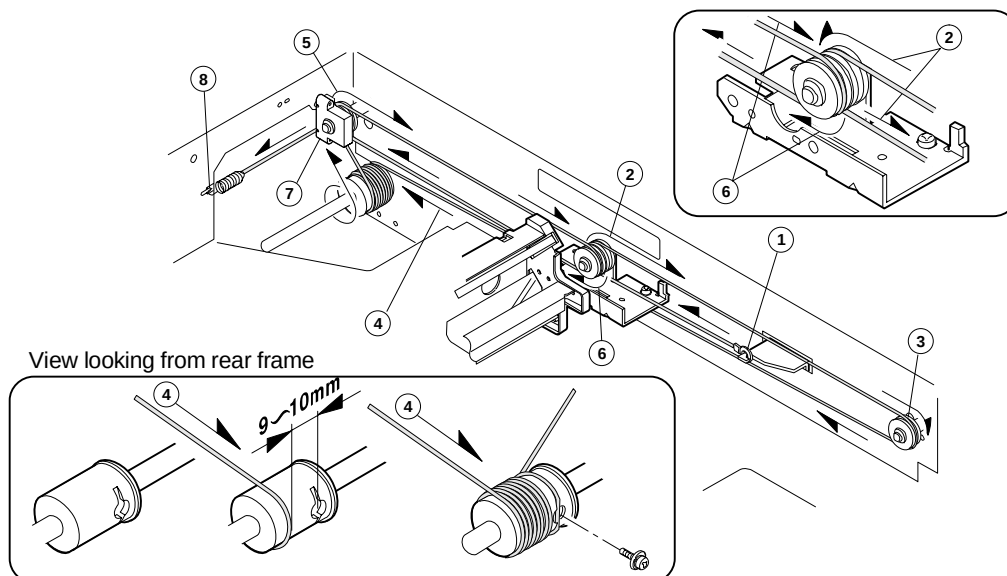
At this time, secure the wire groove of each winding pulley at its upper position. Wind the mirror base wires 9 turns, with the 8th wind settled into the groove.



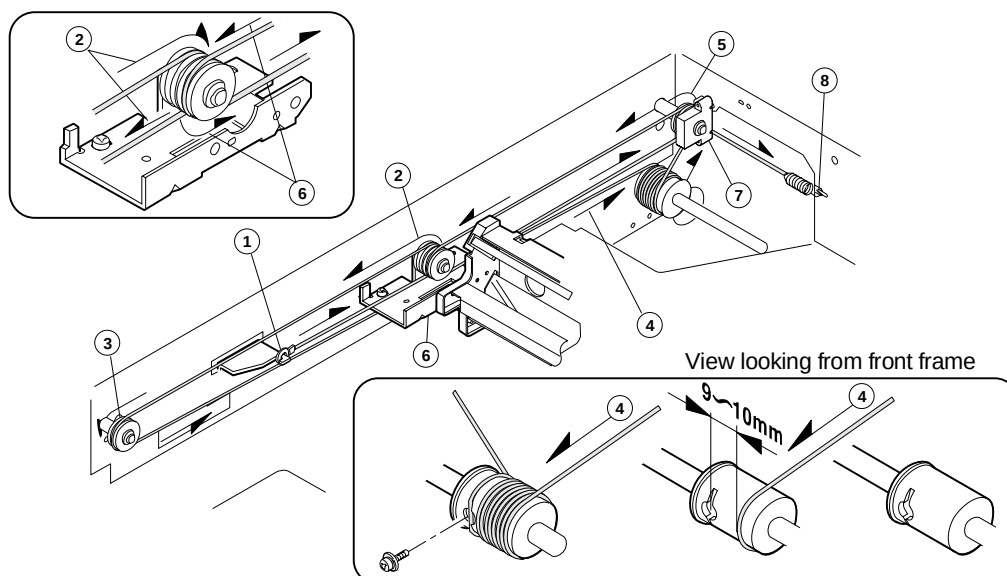
The 1st wind of the mirror base wires should be 9 ~ 10 mm away from the pulley groove toward the frame side.

- ⑤ Pass the mirror base wires through the groove in the paper exit pulley.
- ⑥ Pass the mirror base wires through the inner groove in the mirror base B pulley.
- ⑦ Pass the mirror base wire through the wire guide.
- ⑧ Hook the mirror base wire tension spring on the slot in the optical base.

(Rear frame side)

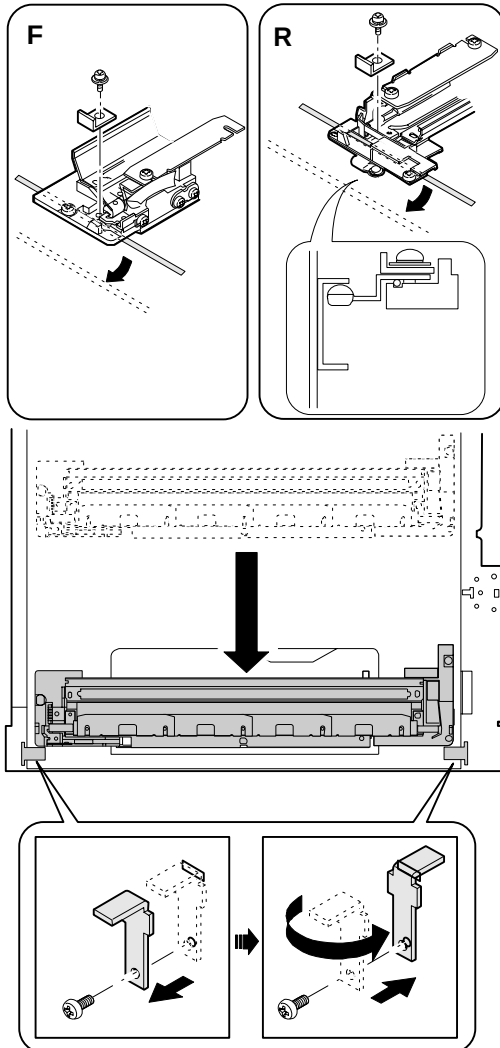


(Front frame side)



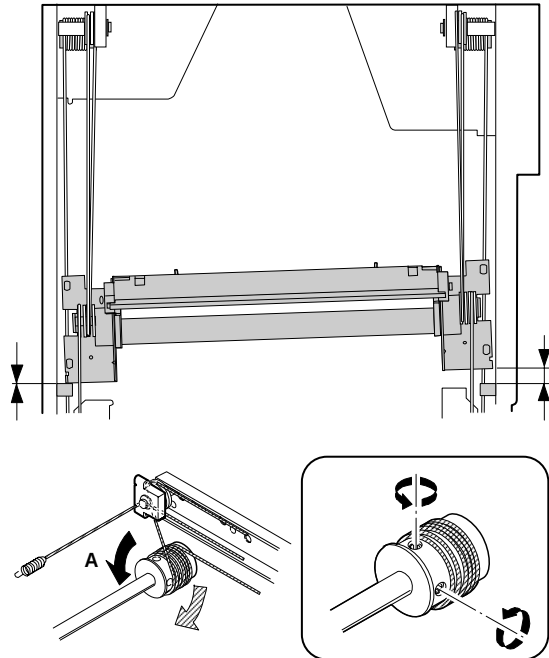
Copy lamp unit installation position

- ① Pass the front and rear mirror base drive wires between the copy lamp unit frame and the wire holder.
At this time, do not tighten the wire holding screw yet.
Change the direction of the front and rear lamp positioning plates.
- ② Press the copy lamp unit against the positioning plate and tighten the wire fixing screw.

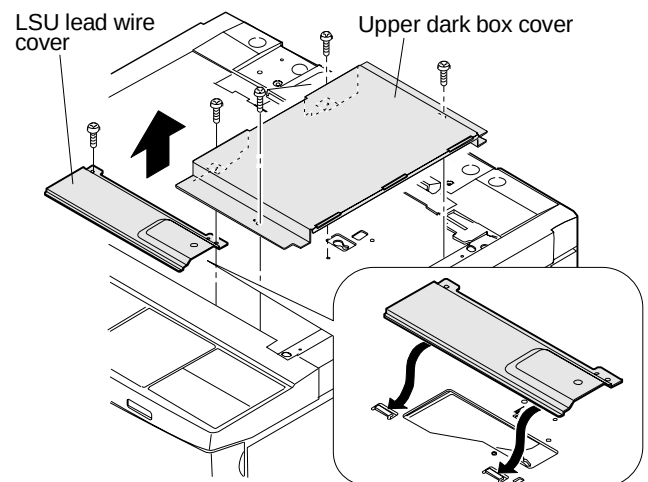
**2nd and 3rd mirror base unit installation position**

This is performed to adjust the parallelism of the mirror base B against the drum surface and document surface.

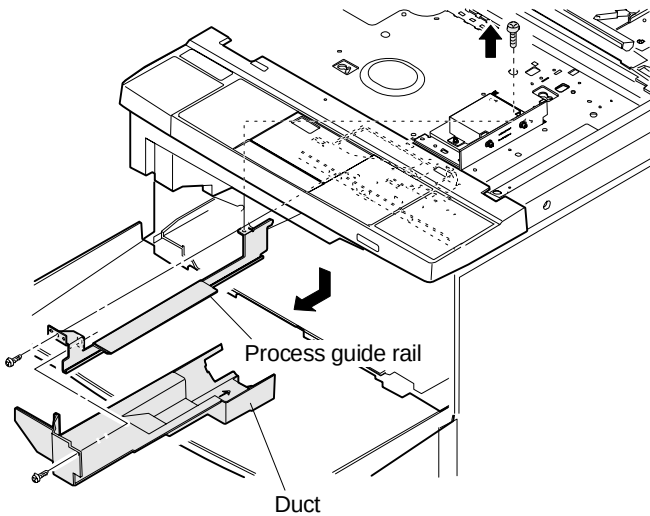
- ① Turn the mirror base drive pulley by hand to let the mirror base B come in contact with the mirror base positioning plate. If both the front frame side and frame side of the mirror base B come in contact with the mirror base positioning plate simultaneously, it indicates that the mirror base B does not have proper parallelism.

**10. LSU****(1) LSU**

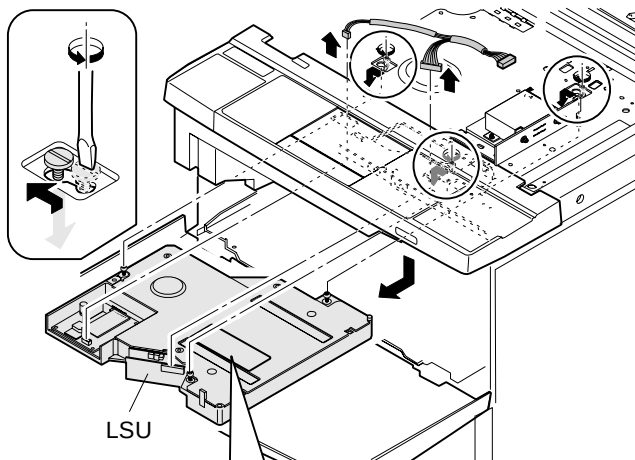
- ① Remove the right and left document guides and remove the table glass.
- ② Remove the upper dark box cover and remove the LSU lead wire cover.



- ③ Open the front cabinet and remove the duct.
Remove the process guide rail.



- ④ Remove the LSU lead wire connector.
⑤ Loosen the screws securing the laser unit.
⑥ Slide the LSU toward the front frame to remove.



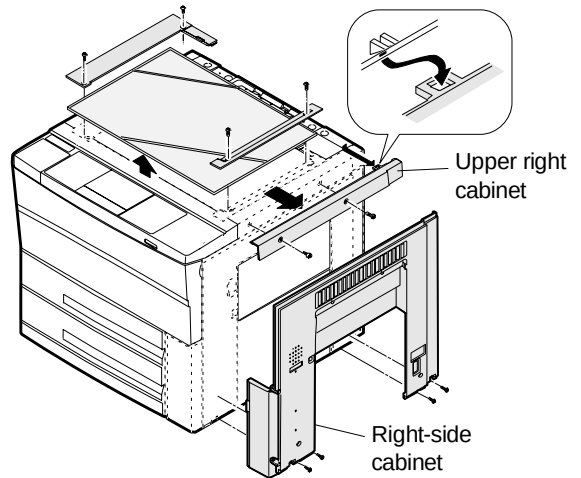
Note: After reinstalling the LSU, adjust its distortion.

11. PWB

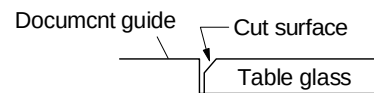
(1) ICU PWB

- ① Remove the right and left document guides and remove the table glass.
② Remove the upper dark box cover.

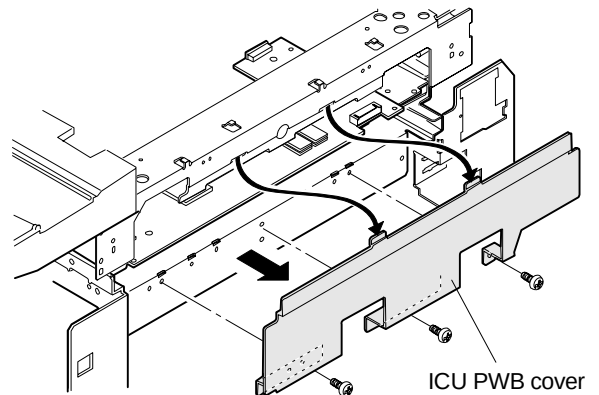
- ③ Remove the right and left cabinets.



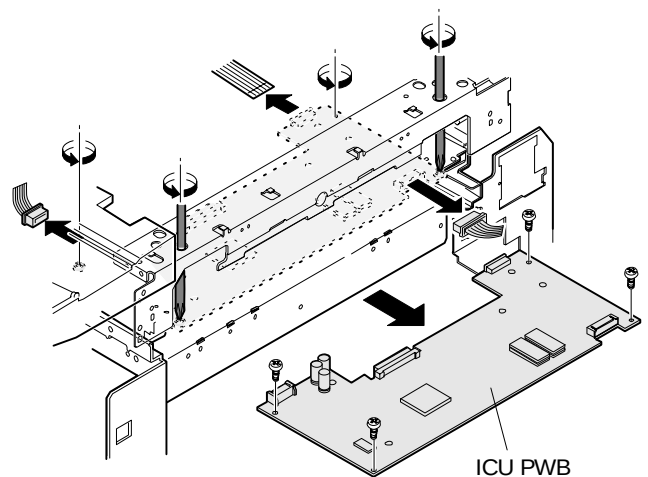
Note: Reinstall the table glass with the cut surface pointed upward.



- ④ Remove the ICU PWB cover.



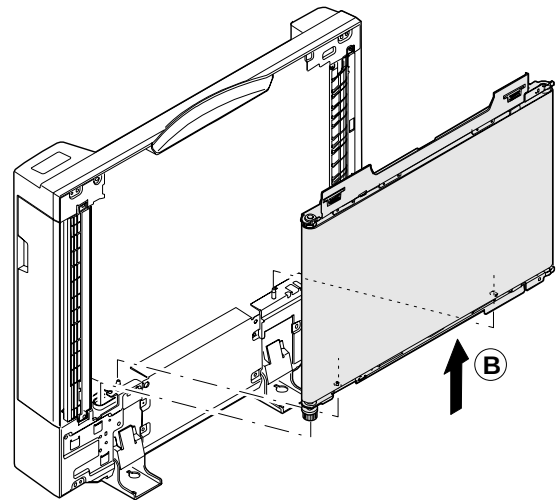
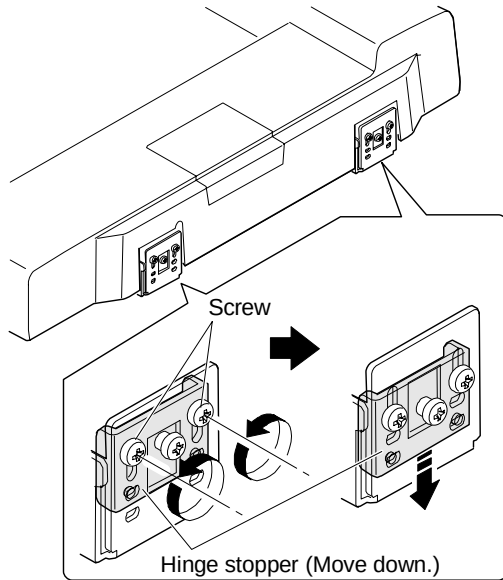
- ⑤ Remove the ICU PWB.



12. RADF

(1) Transport section opening

- ① Loosen screws which are fixing the hinge stopper to allow the hinge stopper to move.
- ② Slide the hinge stopper downward by using the step screw, fit the dove with the hole and tighten the fixing screws which were loosen before.
- ③ Open the transport section.

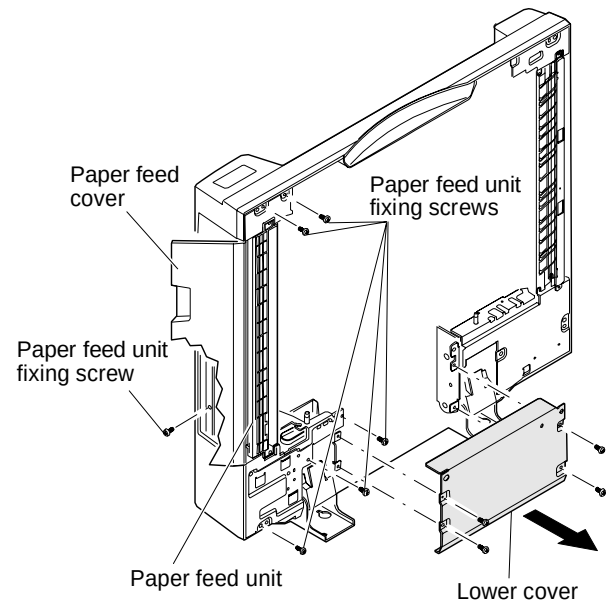
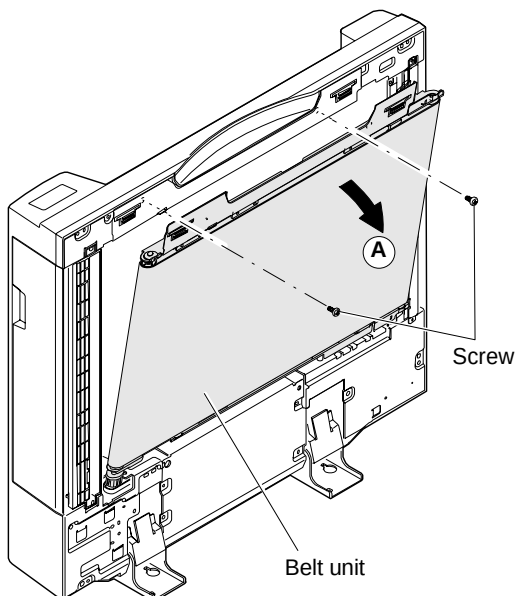


(3) Paper feed unit disassembly

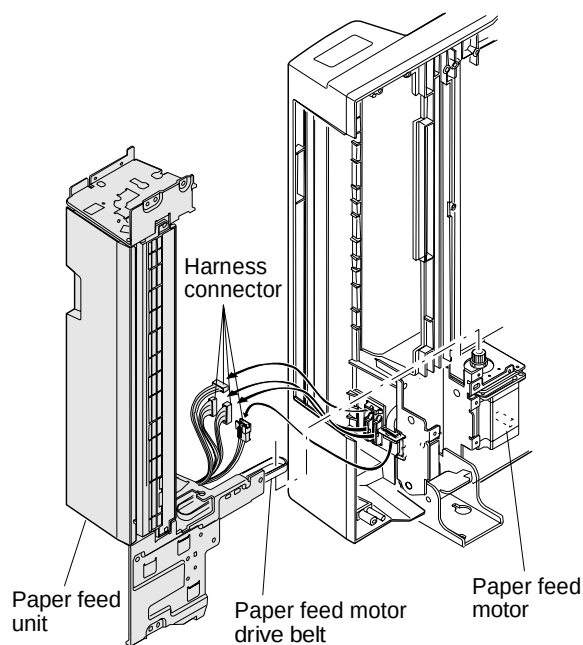
- ① Open the transport section.
- ② Remove the tray.
- ③ Remove screws which are fixing the lower cover, and remove the lower cover.
- ④ Remove the fixing screws of the paper feed unit, open the paper feed cover, and remove the fixing screw.

(2) Belt unit disassembly

- ① Open the transport section.
- ② Remove screws as shown in the figure below, and remove the belt unit as shown with arrow (A) and arrow (B) in this sequence.

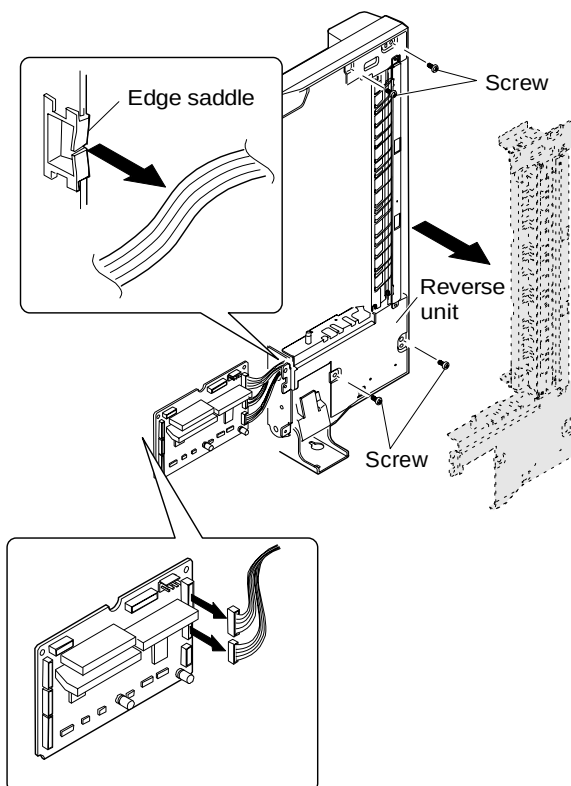


- ⑤ Remove the paper feed motor drive belt, and remove the four harness connectors. Then remove the paper feed unit.



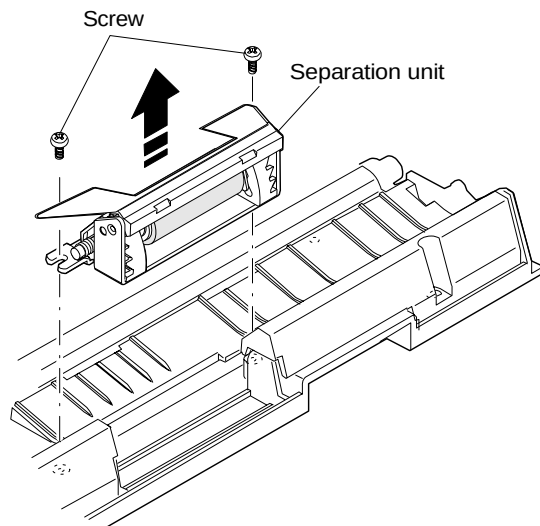
(4) Paper exit unit disassembly

- ① Open the transport section and remove the lower cover.
 ② Remove the fixing screws of the paper exit unit.
 ③ Remove the paper exit unit harness connector from the control PWB, and pull out the harness from the edge saddle shown in the figure below. Then remove the paper exit unit.

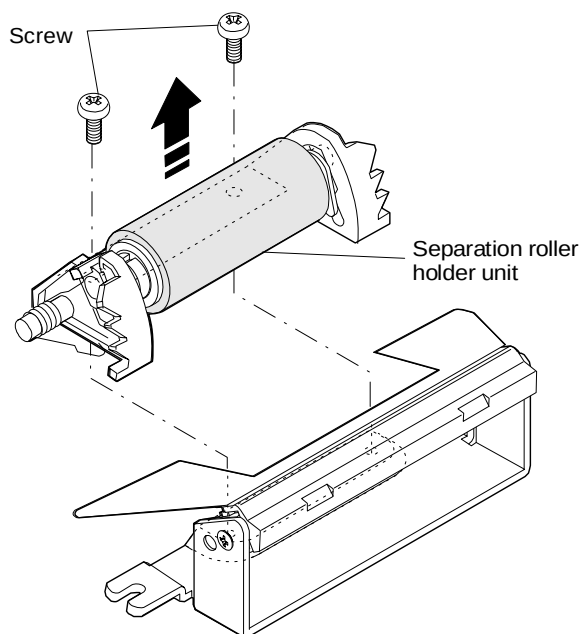


(5) Separation roller disassembly

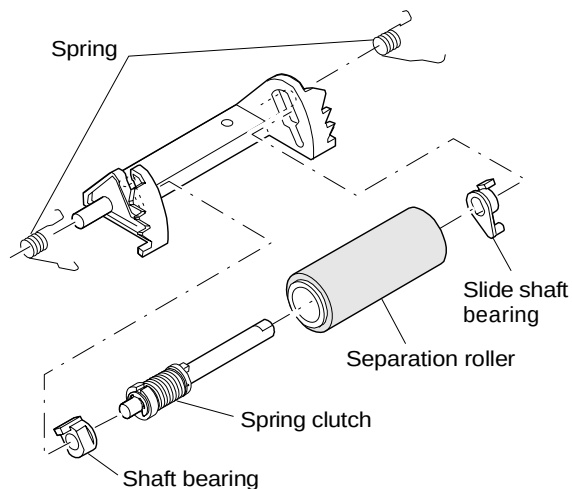
- ① Open the paper feed cover.
 ② Remove fixing screws of the separation unit, and remove the separation unit.



- ③ Remove screws from the separation unit, and remove the separation roller holder unit.

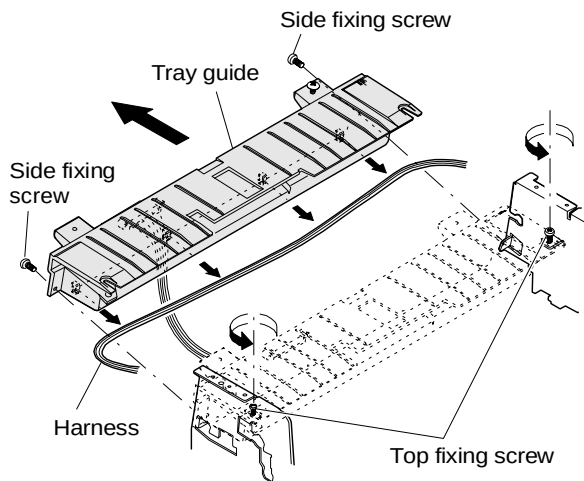


- ④ Remove springs from the separation roller holder, and remove the bearing and the slide bearing. Remove the separation roller and the spring clutch.

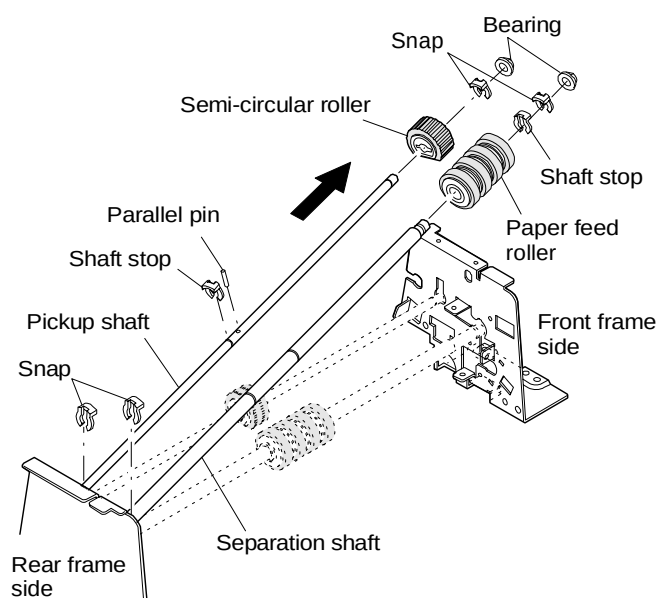


(6) Semi-circular roller, paper feed roller disassembly

- ① Open the paper feed cover.
- ② Loosen fixing screws of the tray guide top, and remove fixing screws of the side.
- ③ Remove the harness from the tray guide upper, and remove the tray guide.
(Be careful not to damage the harness.)

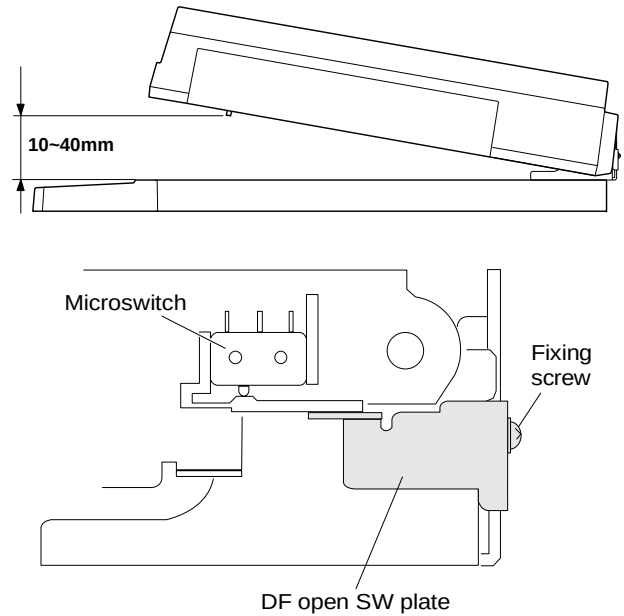


- ④ Remove the snaps from the both ends of the pickup shaft and the separation shaft. (2 kinds of snaps)
- ⑤ Remove the pickup shaft bearing and the separation shaft bearing on the front frame side.
- ⑥ Slide the pickup shaft toward the rear frame, and pull out the front frame side from the chassis.
- ⑦ Remove the shaft stopper and the parallel pin from the pickup shaft and remove the semi-circular shaft.
- ⑧ Slide the separation shaft toward the rear frame, and pull out the front frame side from the chassis.
- ⑨ Remove the shaft stopper from the separation shaft, and remove the paper feed roller.



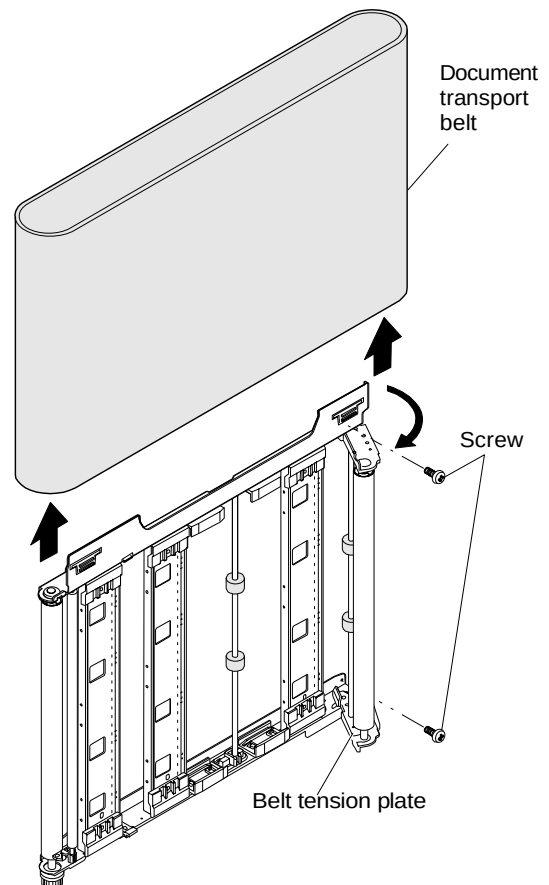
(7) Open/close switch attachment

When closing the transport section from the open state, adjust the DF open SW plate so that the clearance between the glass surface and the DF spacers L and R (front side) is 10 ~ 40mm. Then tighten the fixing screw.



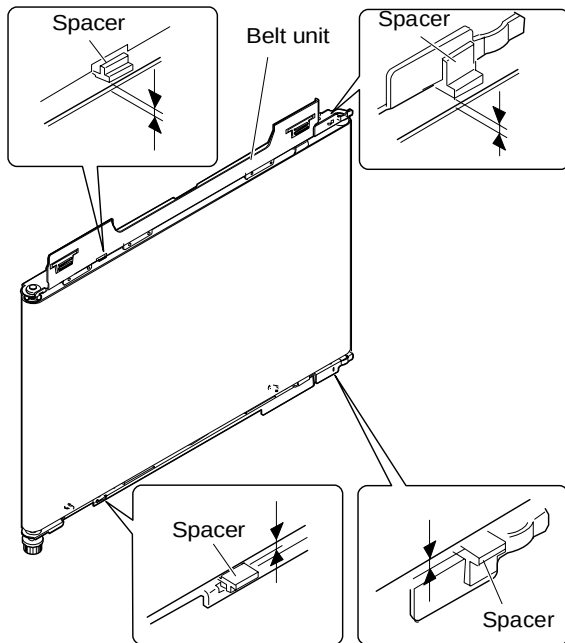
(8) Document transport belt replacement

- ① Remove the belt unit.
- ② Remove the screws shown in the figure below to allow the belt tension plate to be moved. Remove the transport belt with the left and the right in parallel.

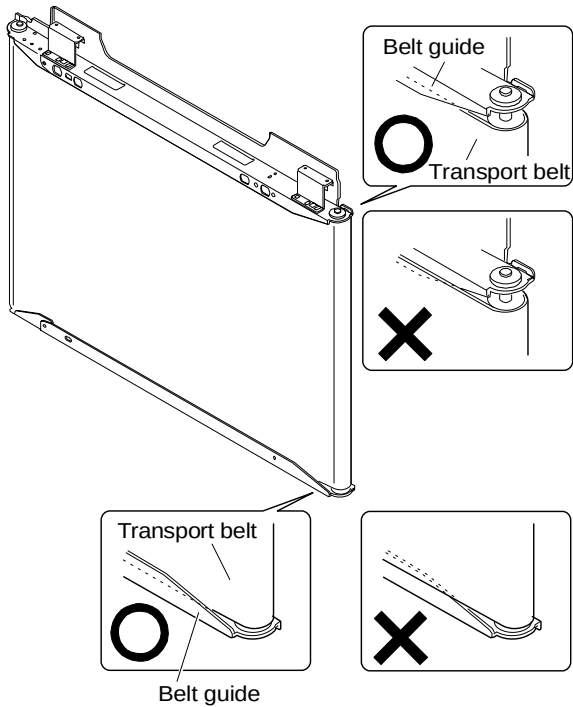


[Note for assembly]

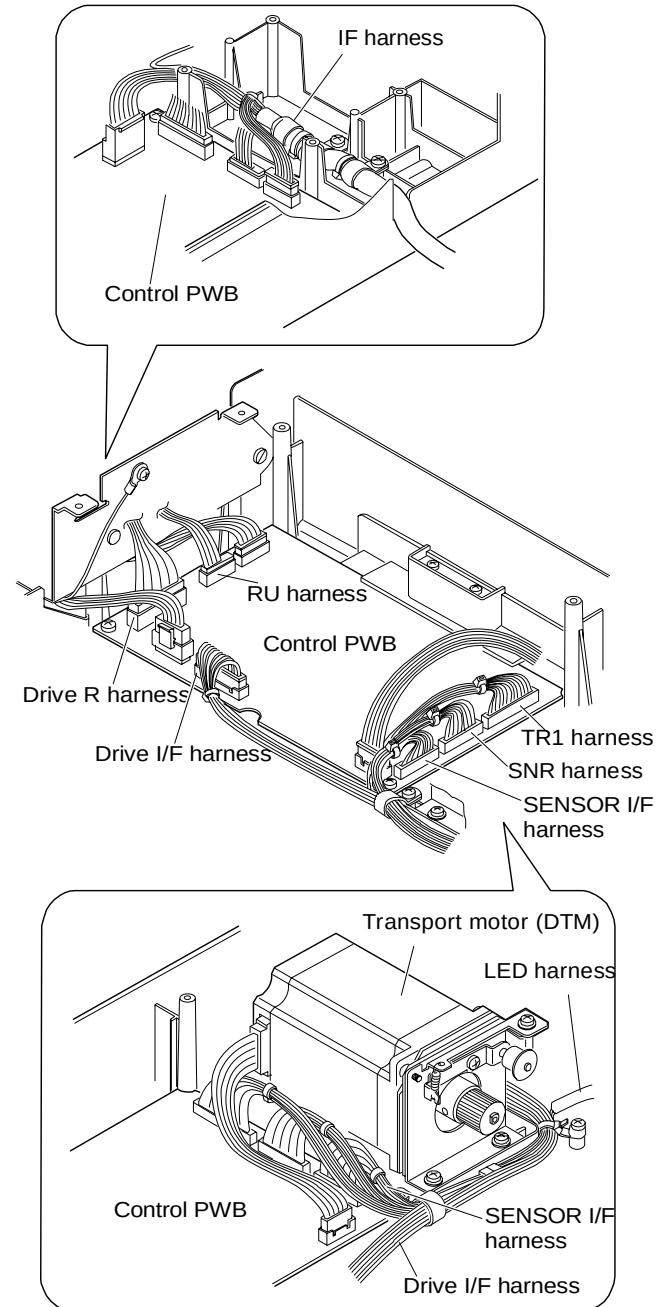
- ① When installing the document transport belt, put the right and left in parallel, and allow the same clearance between the spacer and the belt in the front side and in the rear side.



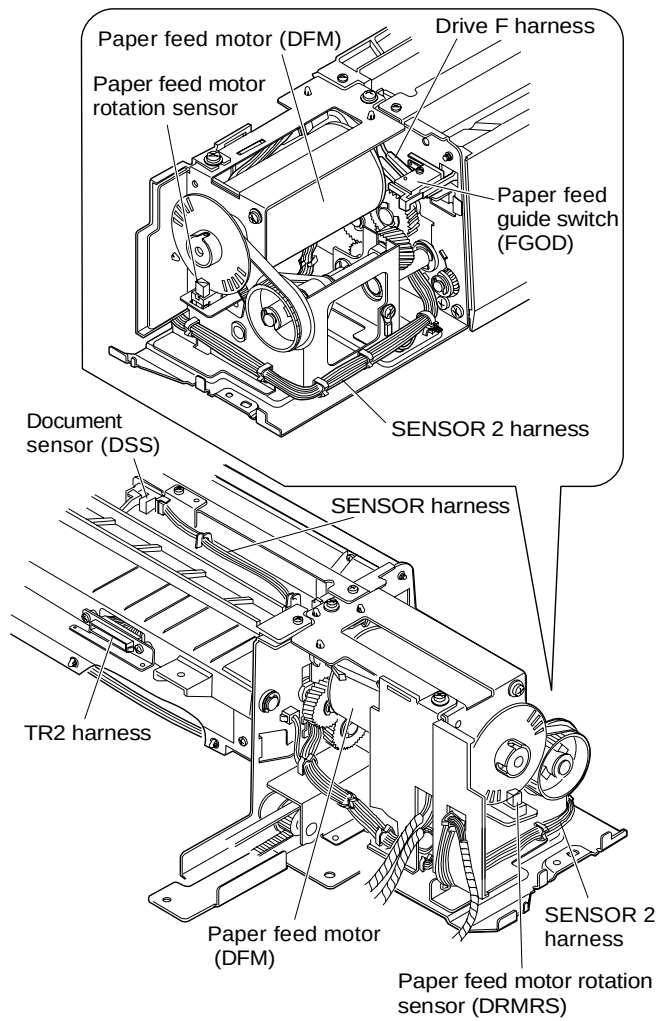
- ② Check that the document transport belt is not on the belt guide.

**(9) CONNECTOR LAYOUT**

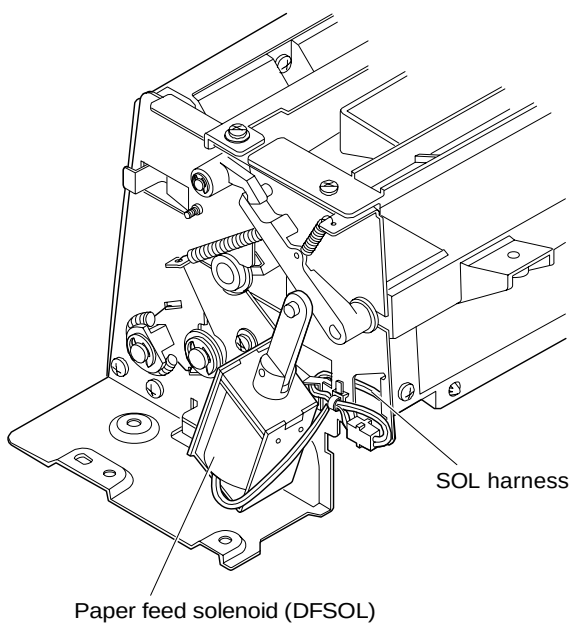
- ① Control PWB peripheral



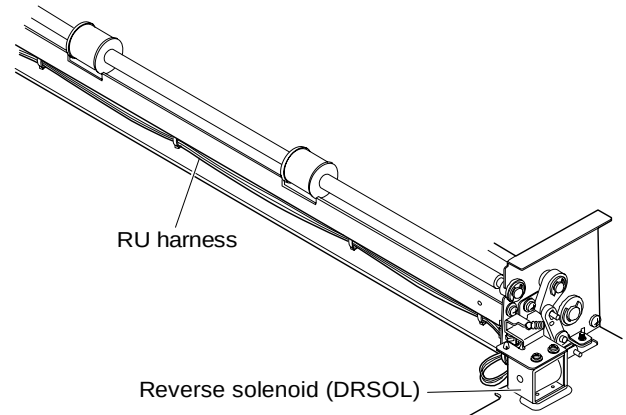
② Paper feed motor peripheral



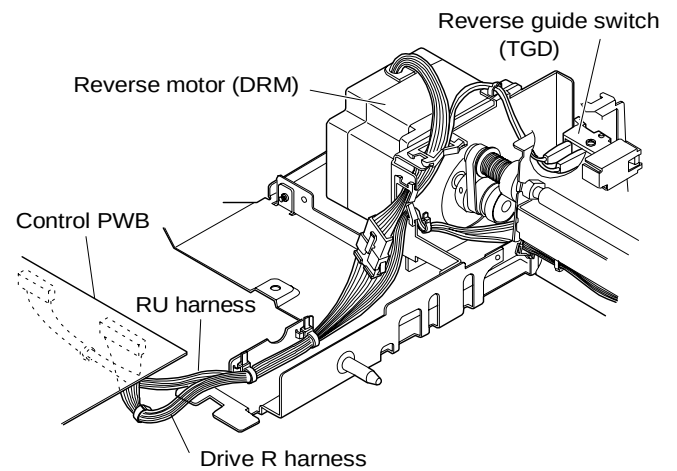
③ Paper feed section (Front side)



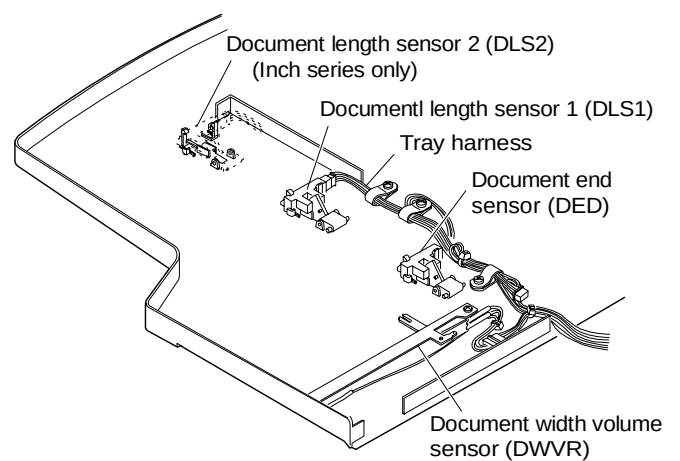
④ Reverse unit section (Front side)



⑤ Reverse unit section (Rear side)



⑥ Tray inside

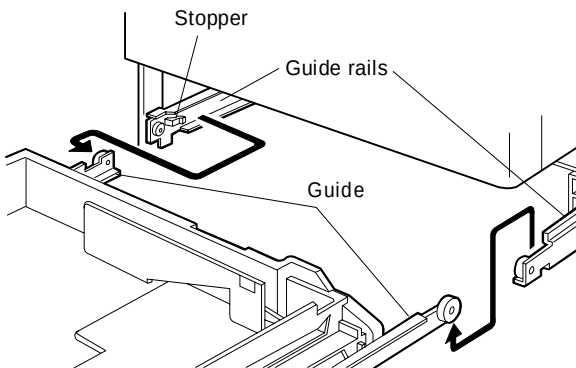
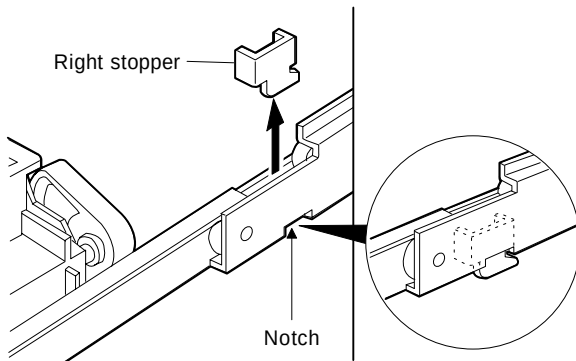


13. DESK UNIT

(1) Paper tray 2 section

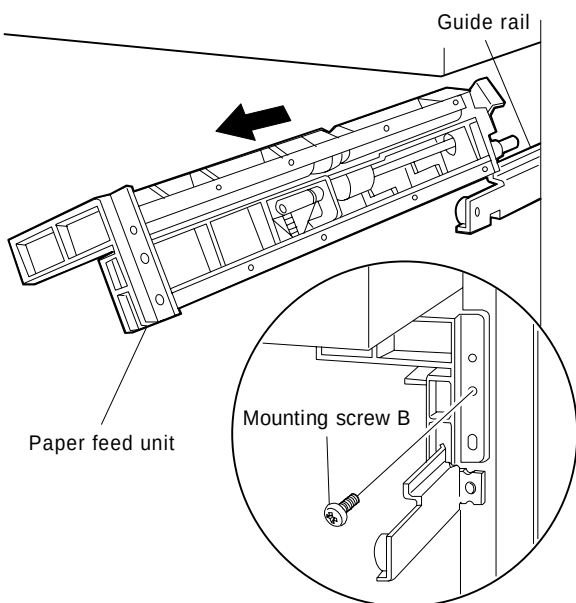
A. Paper tray 2

- Remove the stopper and pull out the paper tray 2.



B. Paper pick-up unit

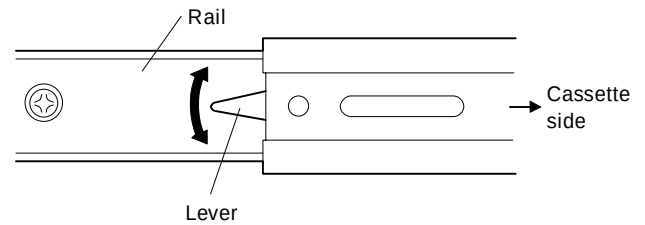
- Pull out the paper tray 2.
- Remove the right cabinet/front right cabinet.
- Pull out the paper pick-up unit.



(2) Paper tray 3 section (LCC tray)

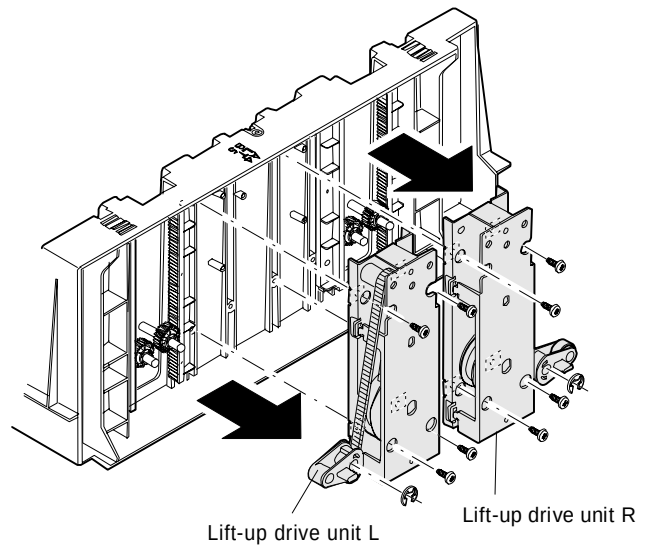
A. Paper tray 3

- Remove the desk cabinets R/L.
- As shown in the figure, press the lever upward or downward, to unlock the accuride and rail.
- Remove the accuride and pull out the paper tray 3 unit.

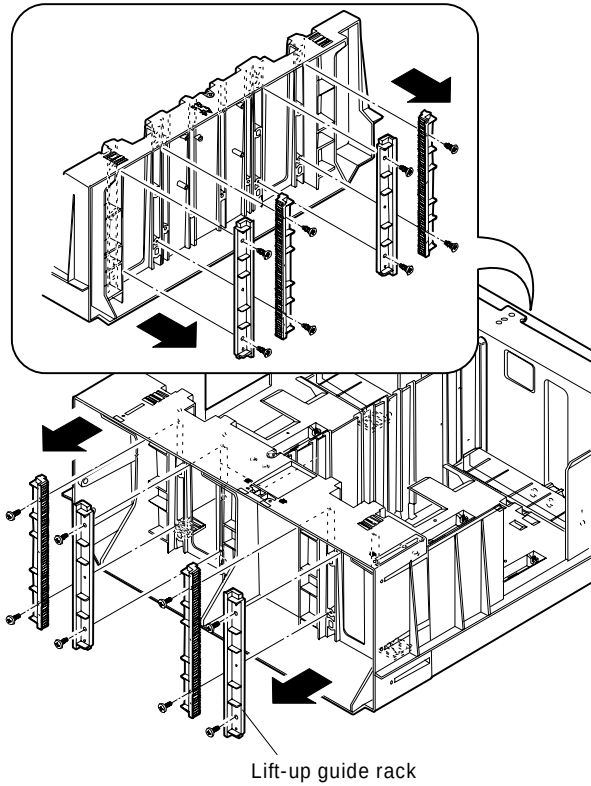


B. Lift-up drive units L/R

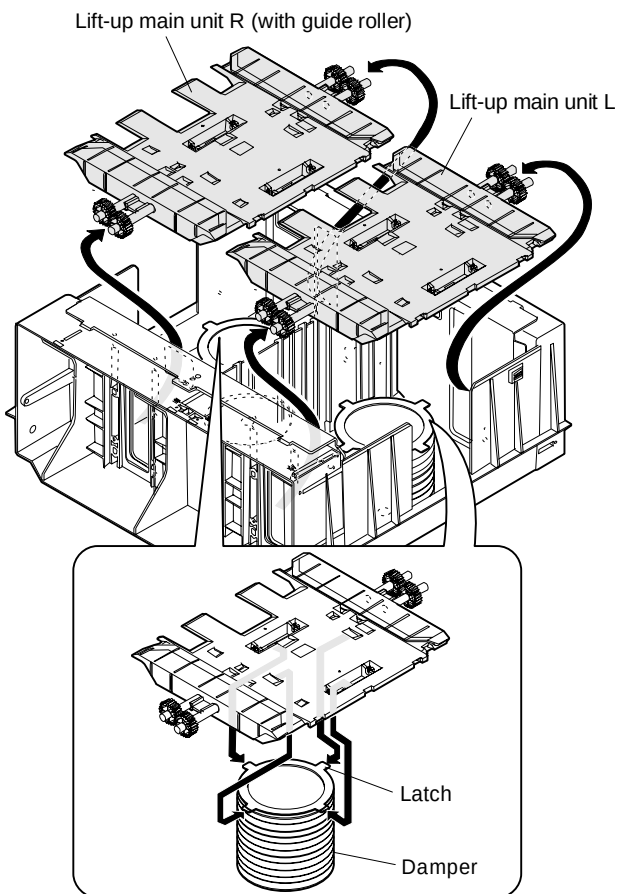
- Remove the paper tray 3.
- Remove the front cover of the paper tray 3.
- Remove the lift-up units L/R.



- d. Remove the lifter guide rack.



C. Remove the damper latch and remove the main lifter.

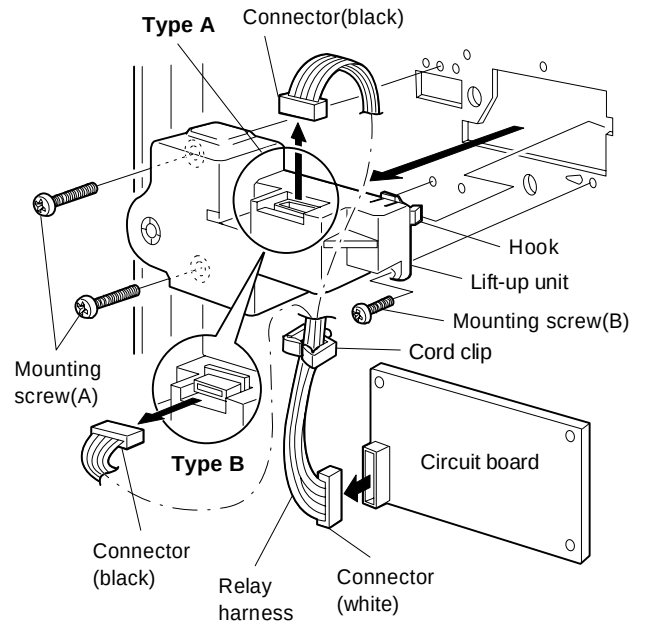


Note: When reinstalling the lifter guide rack, hold the main lifter down against the lowest position. At this time, make sure the main lifter is horizontal (in all directions).

(3) Desk back cabinet section

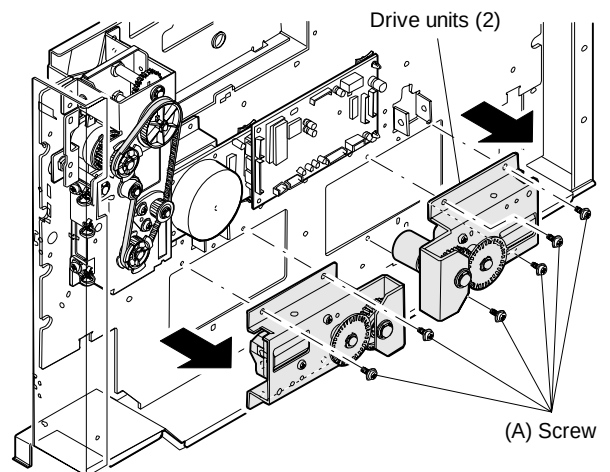
A. Paper tray 2 lift-up unit

- Remove the desk back cabinet.
- Pull out the connector and remove the paper tray 2 lift-up unit. (At this time, use caution not to break the lift-up unit latch.)



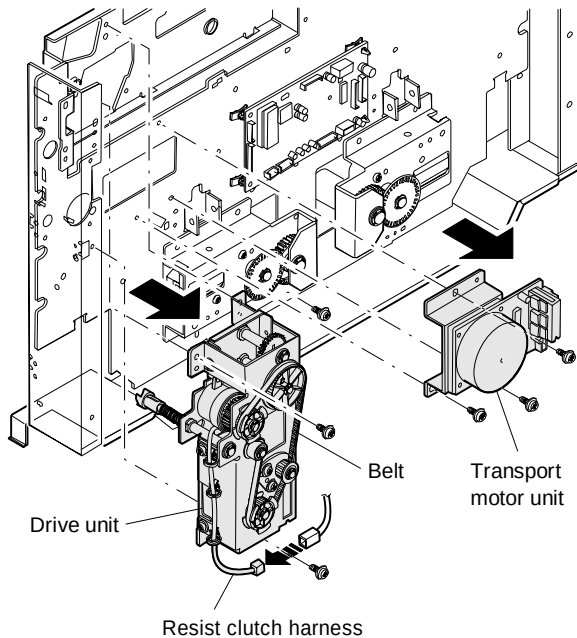
B. Paper tray 3 lift-up unit

- Remove the desk back cabinet.
- Remove the harness from the wire saddle.
- Remove the paper tray 3 lift-up unit 1 and paper tray 3 lift-up unit 2.



C. Drive unit

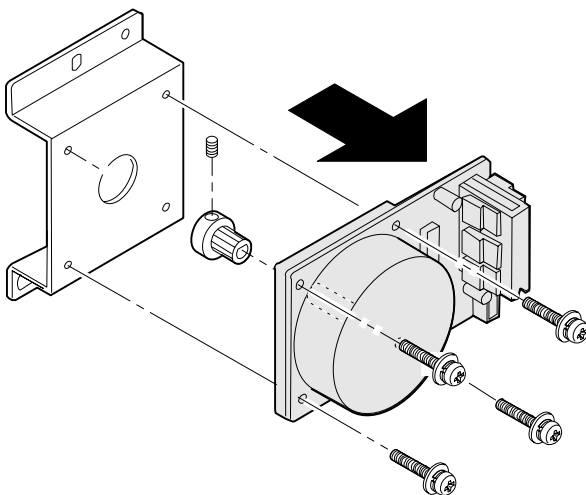
- Remove the desk back cabinet.
- Remove the drive unit.
- Remove the resist clutch harness.
- Remove the paper transport motor unit.



Note: When reinstalling, temporarily secure the paper transport motor unit with screws (with the belt passed). After making sure the belt is stretched by the paper transport motor unit's own weight, tighten the screw securely.

D. Paper transport motor

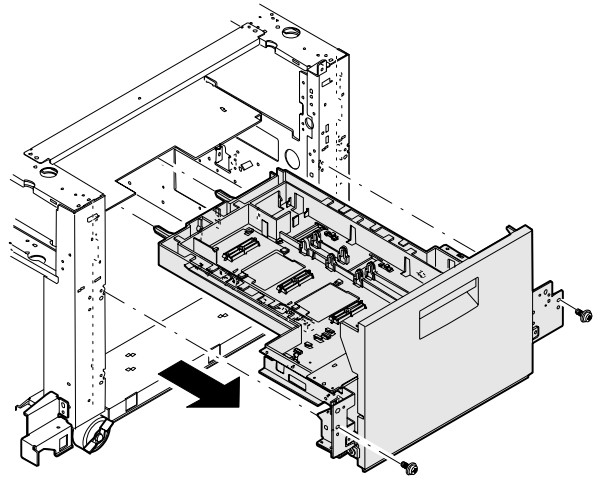
- Remove the back cabinet.
- Remove the paper transport motor unit.
- Remove the gear and detach the paper transport motor.



Note: When reinstalling, it is good practice to pass the belt through the pulley between the drive unit and the paper transport motor unit. This will make it easier to reinstall.

(4) LCC paper transport section**A. LCC paper transport unit**

- Remove the desk cabinets R/L.
- Remove the paper tray 2 and paper tray 3.
- Remove the LCC paper transport unit.

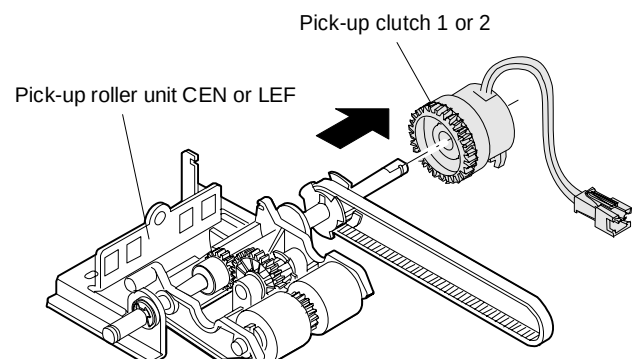
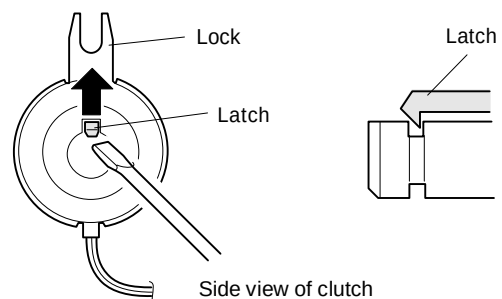


Note: When reinstalling, observe the following precautions:

- Do not leave the LCC paper transport unit halfway along the rail.
- Use caution not to get the harness caught in the parts.

B. Pick-up clutches 1, 2

- Remove the LCC paper transport unit.
- Remove the connector.
- Turn the shaft so that the latch shown in the figure be positioned for easy removal. Push up the latch with the precise slotted screwdriver in the direction indicated by the arrow, to remove the clutch.

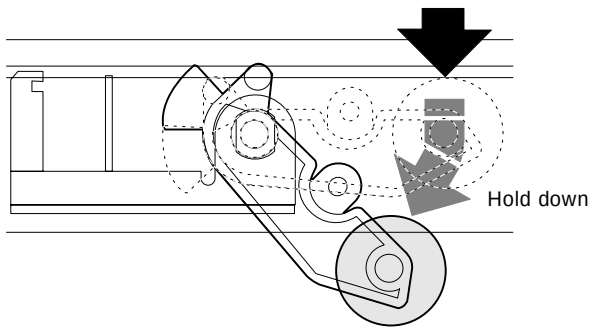


Note:

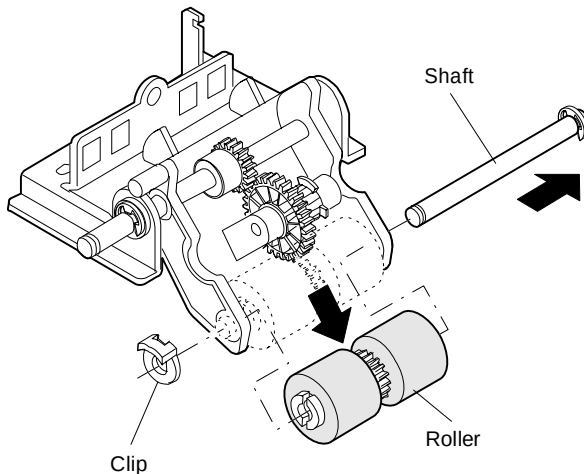
- When removing, use caution not to break the latch. If the latch is accidentally broken, remove all fragments of the part to prevent any of them from getting caught in the gears and other parts.
- When reinstalling, push in the clutch until the latch settles in the groove in the shaft.
- Make sure the snap ring of the clutch is settled in the groove in the LCC paper transport unit.

C. Pick-up roller

- Remove the LCC paper transport unit.
- Hold down the pick-up roller from upside, to make it in the state as shown in the figure.

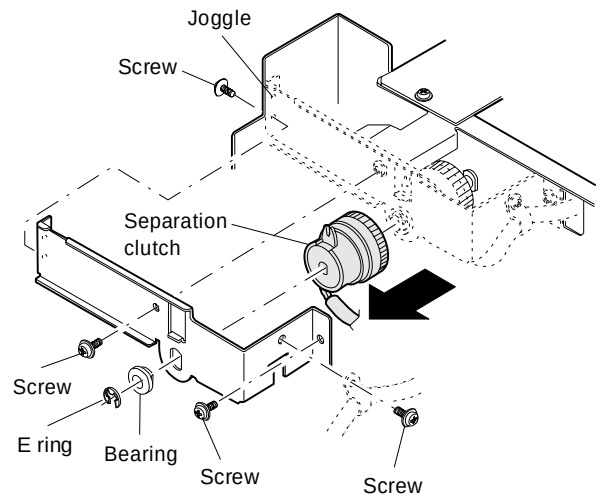
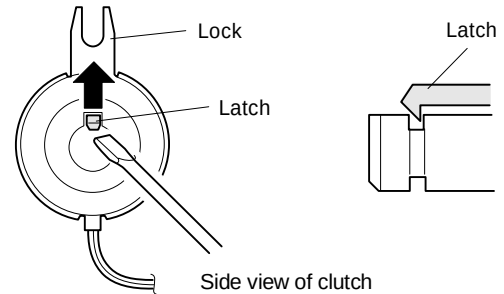


- Remove the clip and detach the pick-up roller.



D. Separation roller clutch

- Remove the LCC paper transport unit.
- Remove the E-ring and detach the bearing.
- Remove the connector.
- Turn the shaft so that the latch shown in the figure be positioned for easy removal. Push up the latch with the precise slotted screwdriver in the direction indicated by the arrow, to remove the clutch.

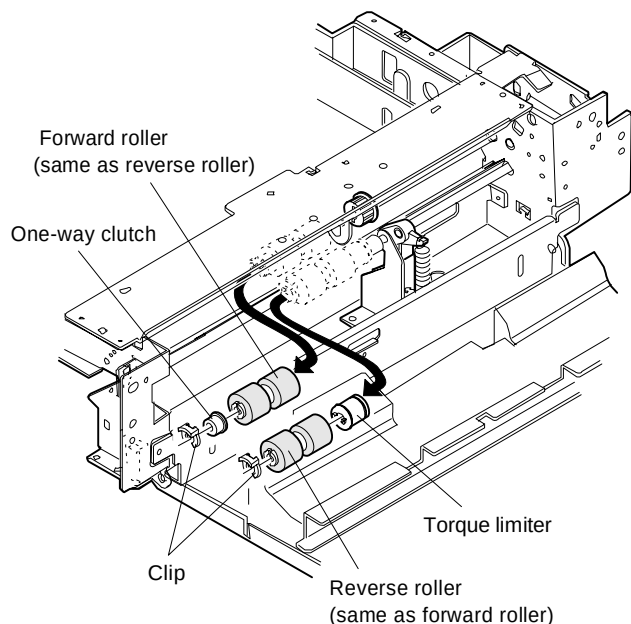


Note:

- When removing, use caution not to break the latch. When the latch is accidentally broken, remove all fragments of the part to prevent any of them from getting caught in the gears and other parts.
- When reinstalling, push in the clutch until the latch settles in the groove in the shaft.
- Make sure the snap ring of the clutch is settled in the groove in the LCC paper transport unit.

E. Paper transport roller/Separation roller/Torque limiter

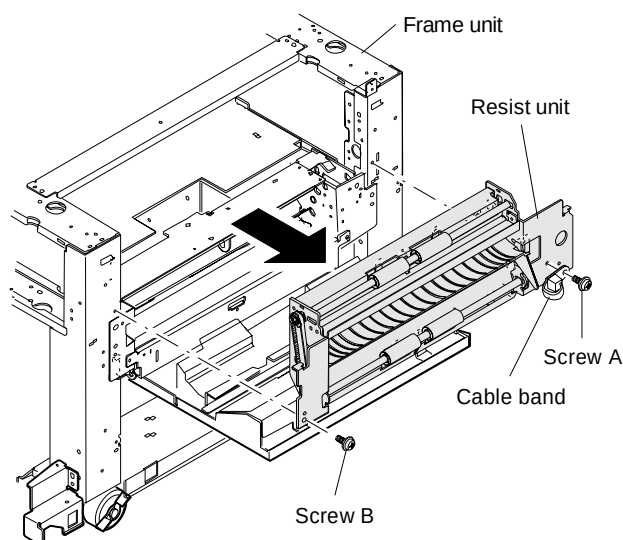
- Open the desk right door.
- Remove the one-way clutch and paper transport roller.
- Remove the separation roller and torque limiter.



Note: When reinstalling the torque limiter, align the notch with the parallel pin on the shaft and make sure the torque limiter is inserted to stop.

(5) Resist roller unit**A. Resist roller unit**

- Remove the desk cabinets R/L.
- Remove the paper tray 2 and paper tray 3.
- Remove the screws and slide the resist roller unit to the left to remove it.

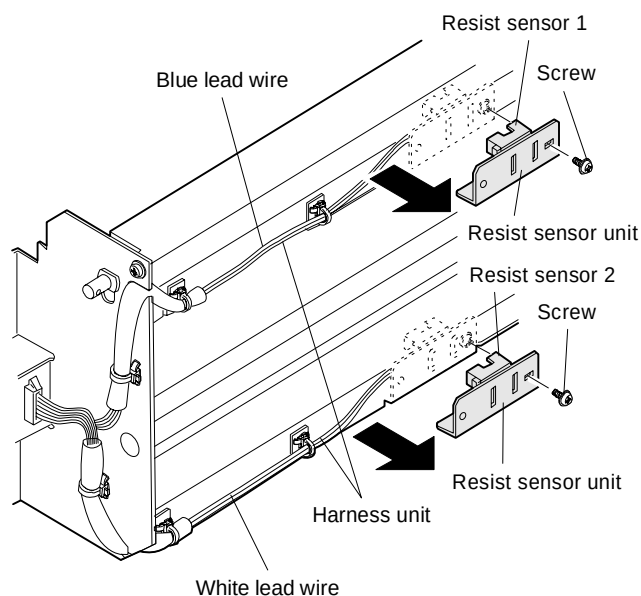


Note: When reinstalling the resist roller unit, observe the following precautions:

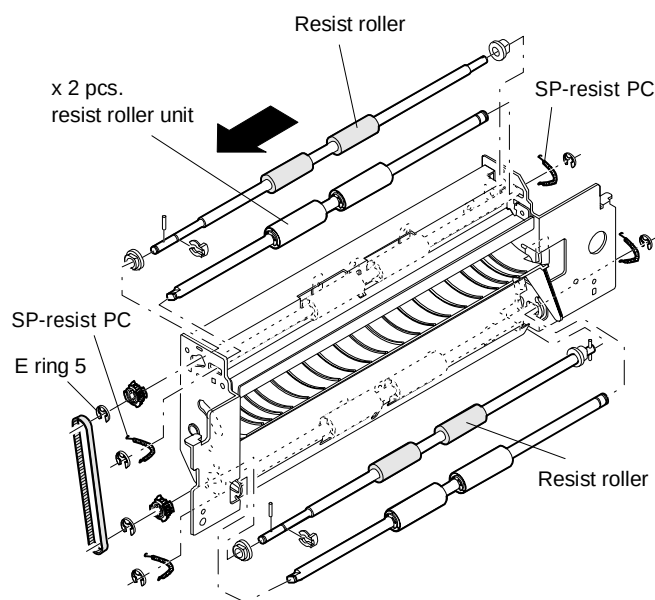
- The cable band should be tied together with the resist roller unit.
- Pay attention to the lengths of the screws A and B. (The screw A is longer than the screw B.)

B. Resist sensor

- Remove the resist roller unit.
- Remove the resist roller sensor unit.

**C. Resist roller**

- Remove the resist roller unit.
- Remove the E-ring and detach the gear and belt.
- Remove the clip.
- Shift the resist roller to the left and remove it.



Note: When reinstalling the resist roller, install the gold color spring at the upper side.

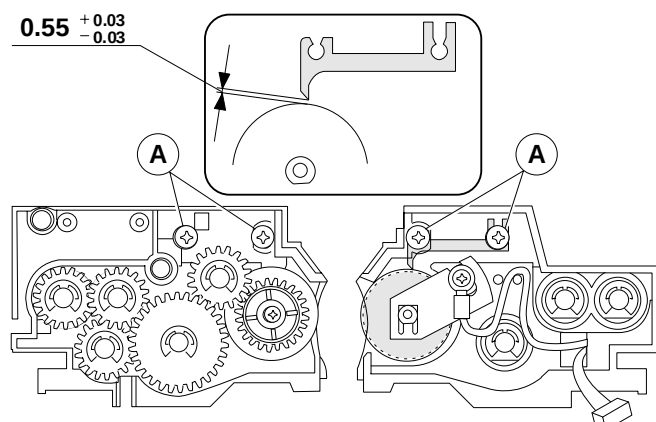
[8] ADJUSTMENT

No.	Item	Contents	Simulation
1	Developing section	(1) Adjusting developing doctor clearance	
		(2) Adjusting developing magnet roller main pole position	
		(3) Adjusting DV bias voltage	8-01
		(4) Pay attention to the following points when installing developing unit rollers	
		(5) Pay attention to the following points when attaching front and rear developing side seals.	
2	Process section	(1) Adjusting high voltage output and balance	A Using special measurement tools
			B Adjusting transfer charger current
			C Adjusting main charger grid voltage
			D Adjusting separation charger output
		(2) Precautions in maintaining high-voltage charger unit	A Main charger unit
			B Transfer/separation charger unit
3	Laser unit	(1) Checking printing by laser unit (adjusting distortion by self-printing mode)	64-01
4	Optical section	(1) Adjusting magnification in main-scanning direction	
		(2) Adjusting magnification in sub-scanning direction	48-02
		(3) Adjusting distortion in longitudinal direction	
		(4) Adjusting distortion in lateral direction	
		(5) Adjusting leading edge position of copy	50-01, 50-02
5	Document detection section	(1) Adjusting document detection arm unit	41-01
		(2) Adjusting document detection level	41-02, 41-03
6	Others	(1) Printing off-center	50-10, 50-11
		(2) Adjusting document off-center	A Document table
7	Paper tray 1/2	(1) Adjust any center misalignment	
8	Paper tray 3	(1) Adjust any center misalignment	
9	ADU	(1) Adjust any matching guide	52-01
		(2) Adjust any center misalignment	
10	RADF	(1) Adjust any center misalignment	
		(2) Document lead edge position adjustment	53

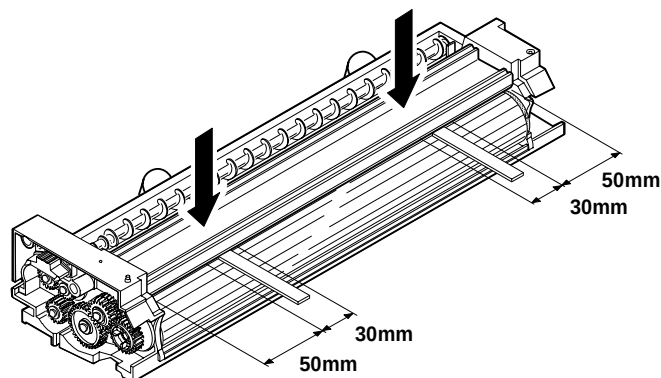
1. Developing section

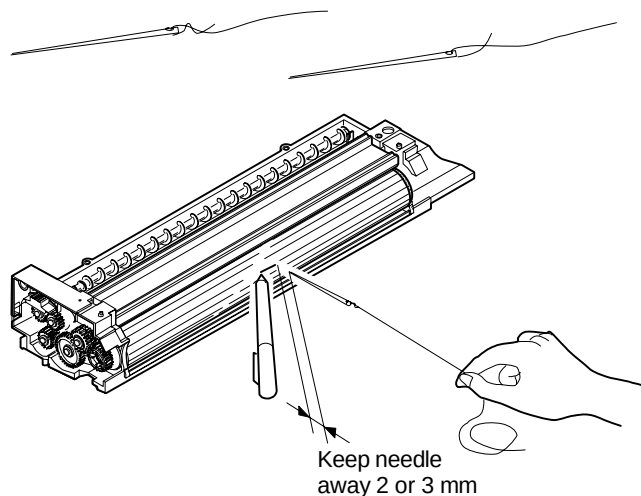
(1) Adjusting developing doctor clearance

- ① Remove the four screws securing the toner hopper and the developer tank and 5-pin connector, to separate the toner tank hopper from the developer tank.
- ② Loosen the four screws A securing the DV doctor (2 at the front and 2 at the rear frame).
- ③ Insert 0.05 mm clearance gauges at positions 50 ~ 80 mm from the end of the DV doctor.



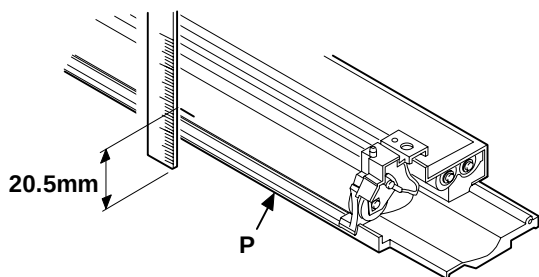
- ④ Press the DV doctor in the direction indicated by the arrow, and tighten the DV doctor fixing screws (4 screws both at the front and rear frames).
 - ⑤ Make sure the clearance is 0.55+0.03-0.03 at the positions 50 ~ 80 mm from both ends of the DV doctors.
- * Note: Use caution not to damage the DV doctor or MG roller when inserting clearance gauges.





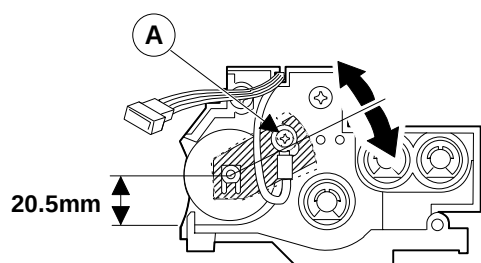
(2) Adjusting developing magnet roller main pole position

- ① Remove the four screws securing the toner hopper and the developer tank and 5-pin connector, to separate the toner tank hopper from the developer tank. Lay the developer tank on a level surface.
- ② Tie thread to a sewing needle or set screw, as shown above.
- ③ Holding one end of the thread, bring the needle close to the MG roller keeping it horizontal. (Do not use a clip, because the MG roller is so small that you cannot pinpoint the correct position.)
- ④ Keep the tip of the needle 2 ~ 3 mm away from the MG roller surface and mark its surface in a position which hits the line extended from the needle's end. (Do not let the tip of needle contact the MG roller.)



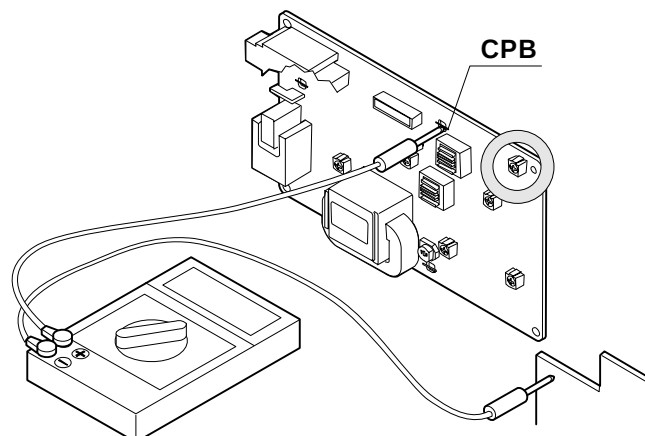
- ⑤ Measure the distance between the marking and the developer tank shaded area P. Make sure the distance is 20.5 mm.

If the value is not as specified, loosen the screw A securing the main pole adjustment plate and move the adjustment plate properly in the direction indicated by the arrow.



(3) Adjusting DV bias voltage

- ① Set the digital multi meter range for DC 400V or more.
- ② Put the test rod between the DV bias output check pin (CP-B) and the chassis (GND).



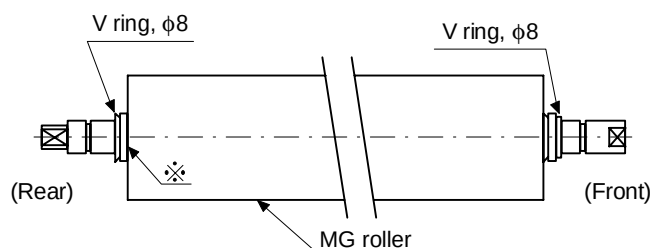
- ③ Execute SIM 8-1 to check the DV bias voltage.

DV bias in each mode		Output voltage
Auto	8-1	-400 ±5V
Manual	8-1	-400 ±5V
Photo	8-1	-400 ±5V
Soft-focus photo	8-1	-400 ±5V
Toner saving	8-1	-350 ±5V
Printer	8-1	-400 ±5V

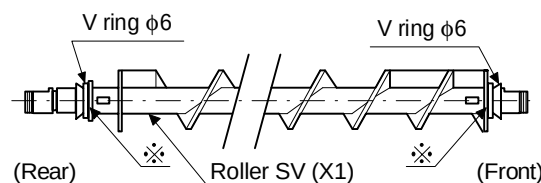
- ④ If the DV bias output voltage is not in the range shown in the above table, change the set value again.

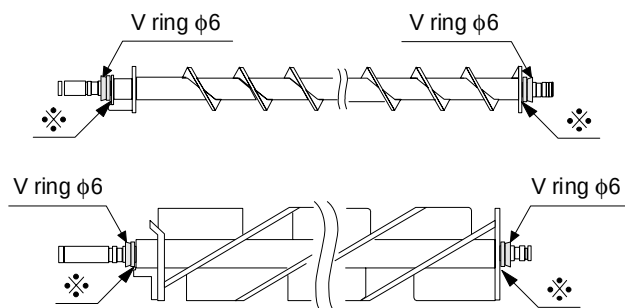
(4) Pay attention to the following points when installing developing unit rollers

- ① Direction of installing V rings
- ② Make sure there is no clearance between the V ring and roller in the marking position (*).



- ③ Installation of the φ8 ring, C ring 8 and φ6 V rings.



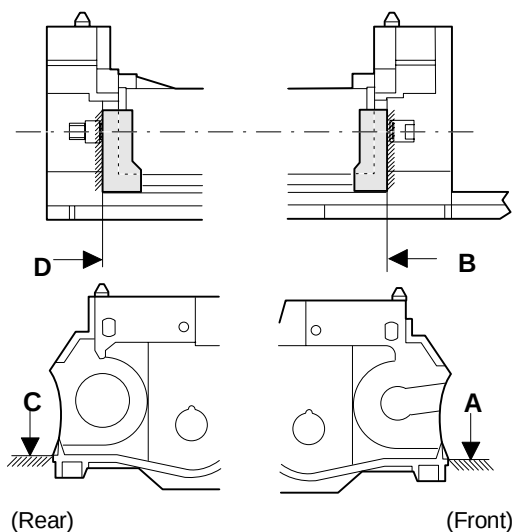


Developing magnet roller

- 1) Pay attention to the direction of the V rings.
- 2) Make sure there is no clearance at the area where the V rings are in contact with each roller.

(5) Pay attention to the following points when attaching front and rear developing side seals

- ① Clean the surface where the seals are to be attached, of lubricant and foreign matter.
- ② Make sure seals are securely attached, without peeling off.



(Rear)

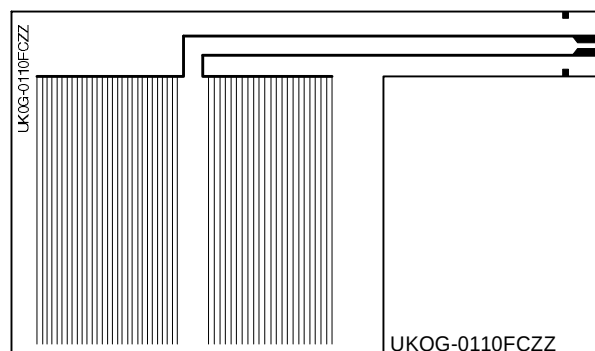
(Front)

2. Process section

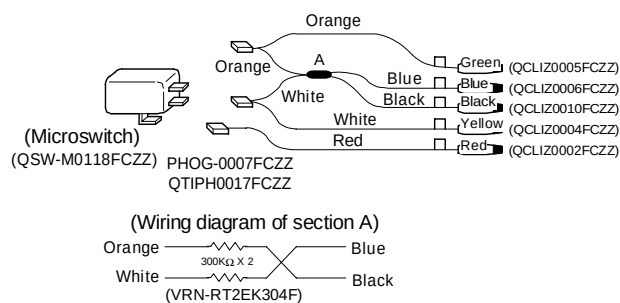
(1) Adjusting high voltage output and balance

A. Using special measurement tools

Electrode sheet (UKOG-0110FCZZ)

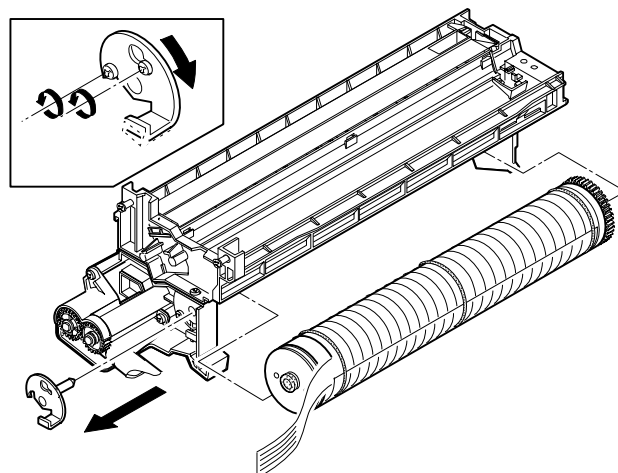


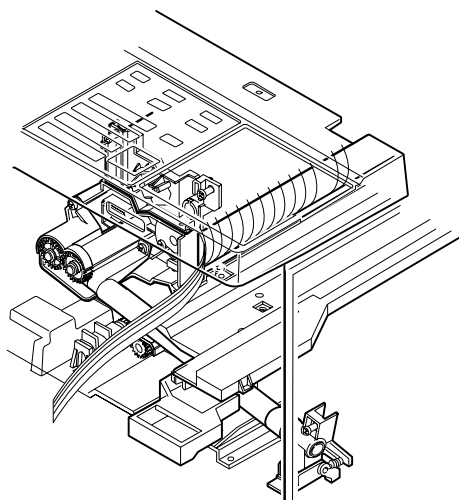
Electrode sheet harness (DHAI-0304FCZZ)



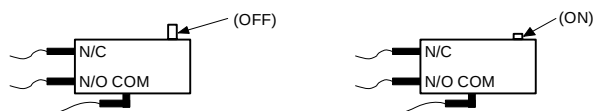
B. Adjusting transfer charger current

- ① Remove the developing unit, transfer/separation charger unit, main charger unit and waster toner collection container.
- ② Remove the process unit from the machine.
Do not hold the toner transport pipe when removing (reinstalling) the process unit from the machine.
- ③ Remove the OPC drum from the process unit. Attach the electrode sheet to the OPC drum with rubber bands and tape.
- ④ Install the OPC drum on the process unit. Install the process unit on the machine.
- ⑤ Install the drum holder unit into the machine so that the electrode sheet lead wire can be drawn out from the developer tank unit side.

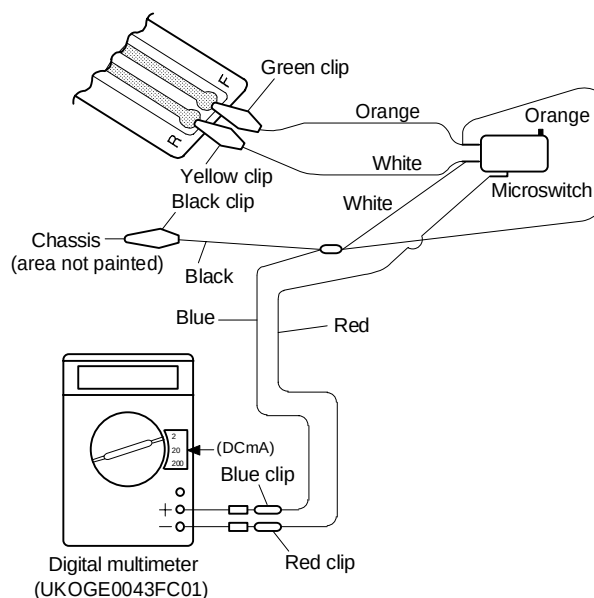




- ⑥ Clean the transfer charger wire and reinstall the transfer/separation charger unit into the machine. (Do not install the main charger yet.)
- ⑦ Connect the electrode sheet to the digital multimeter (or an ammeter). Turn the door switch ON by hand.
- ⑧ Check the drum current on both the front and rear frame sides. The difference in current between the front and rear frame sides must be less than $6.0 \mu\text{A}$.
 - a. Turn the main switch ON and execute SIM 8-06. (THVG turns on and stays on for about 30 seconds.)
 - b. Measure the drum current on the front and rear frame sides.
 - When the microswitch is OFF: the drum current on the front frame side is displayed.
 - When the microswitch is ON: the drum current on the rear frame side is displayed.



- c. Check that the difference in current between the front and rear frames is less than $6.0 \mu\text{A}$. If the difference is more than $6.0 \mu\text{A}$, it indicates the charger unit is defective. Replace the charger unit.
- ⑨ Adjust the THVG output current.
 - a. Turn the main switch ON and execute SIM 8-06. (THVF turns on and stays on about 30 seconds.)
 - b. Adjust the THVG output current for $+13.5 \pm 3 \mu\text{A}$ with the THVG output adjustment VR201.



(Note)

Make sure the black clip is completely grounded to the chassis of the machine.

When UKGE0043CS01 is to be used:

Knob 1: Set to DCmA

Knob 2: Set to 2

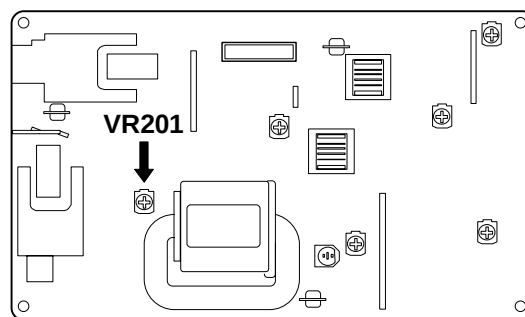
Red clip: Connect to $\oplus$

Blue clip: Connect to $\ominus$

When a DC ammeter is to be used:

Red clip: Connect to the $\oplus$ of the DC ammeter.

Blue clip: Connect to the $\ominus$ of the DC ammeter.



C. Adjusting main charger grid voltage

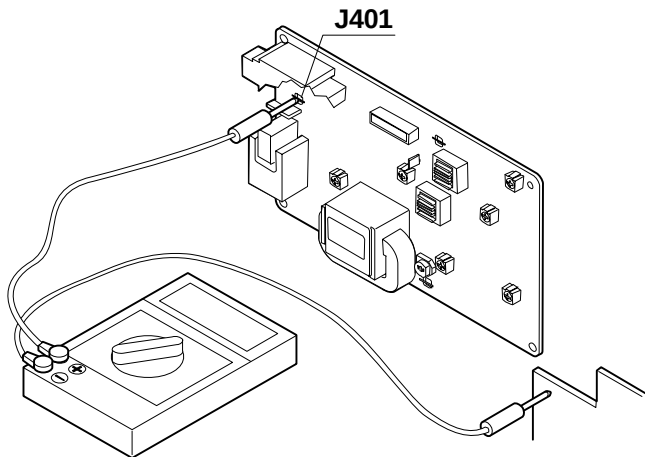
This adjustment should be performed with the OPC drum installed. The electrode sheet is not used.

- ① Install the DV unit and drum holder unit on the copier. Turn the copier ON. (The electrode sheet should not be used on the drum.)
- ② Install the main charger unit on the copier. All charger units should be installed on the copier.
- ③ Turn the main switch ON. Execute SIM 8-2 to check the grid voltage setting.

Note: The value of the simulation 8-2 entered and actual output voltage do not matched with each other.

(Measurement at high-voltage PWB check point)

- ④ Remove the rear cabinet.
- ⑤ Connect the digital multimeter to the grid voltage output check pin (CP-GB).
- ⑥ Set the digital multimeter for the DCV range. (Use a digital multimeter which allows measurement up to DC 1000V.)
- ⑦ Turn the door switch ON by hand.
- ⑧ Turn the main switch ON. Execute SIM 8-02 (select all modes from auto mode to printer mode) to check the output voltage.



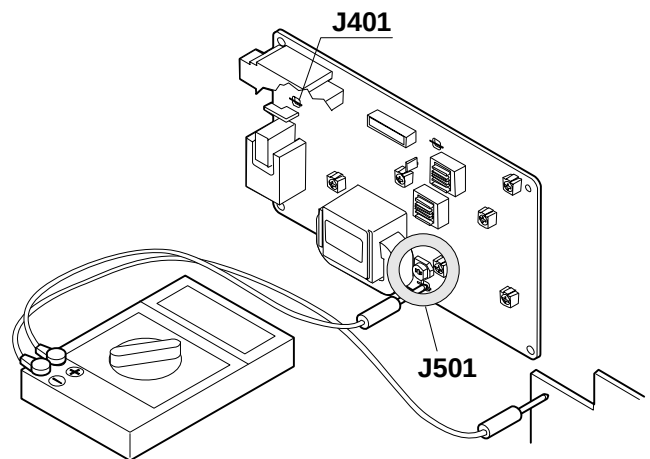
Main charger grid voltage in each mode		Output voltage
Auto	8-2	$-490 \pm 5V$
Manual	8-2	$-490 \pm 5V$
Photo	8-2	$-490 \pm 5V$
Soft-focus photo	8-2	$-490 \pm 5V$
Toner saving	8-2	$-440 \pm 5V$
Printer	8-2	$-460 \pm 5V$

- ⑨ If the output voltage is out of the specified range, adjust the output voltage by changing the value being displayed (3 digits) (The voltage varies 1 V for every 1 step.)

D. Adjusting separation charger output

This adjustment should be performed with the electrode sheet not used.

- ① Install both the DV unit and drum holder unit on the copier. Power the copier ON.
- ② Install both the separation charger unit and the drum holder unit on the copier. All charger units should be installed on the copier.
- ③ Remove the rear cabinet.
- ④ Connect the digital multimeter to the SHVG output check pin J501.

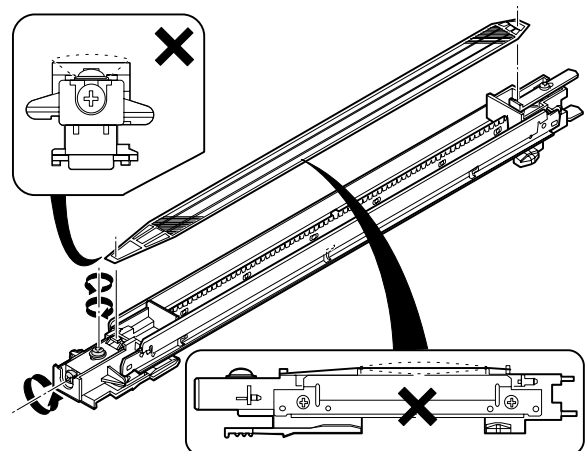


- ⑤ Set the digital multimeter for the DCV range.
- ⑥ Turn the door switch ON by hand.
- ⑦ Execute SIM 8-07. (SHVG turns on and stays on for about 30 seconds.)
- ⑧ During execution of the simulation, adjust the separation charger output monitor voltage (bias voltage) for $-400 \pm 10V$ with the SHVG output adjustment knob VR-502.

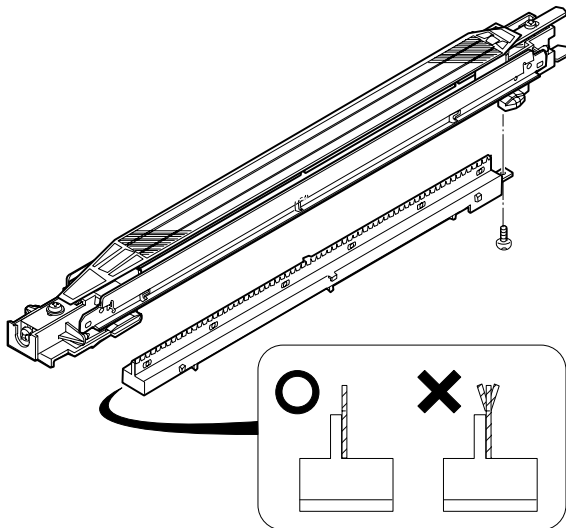
(2) Precautions in maintaining high-voltage charger unit

A. Main charger unit

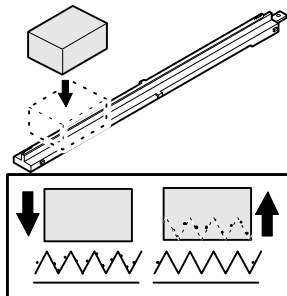
- ① Make sure the screen grid is free from twist, deformation or contamination when installing it. Make sure it is securely settled in the specified positioning groove.



- ② Make sure the saw blades are not deformed.

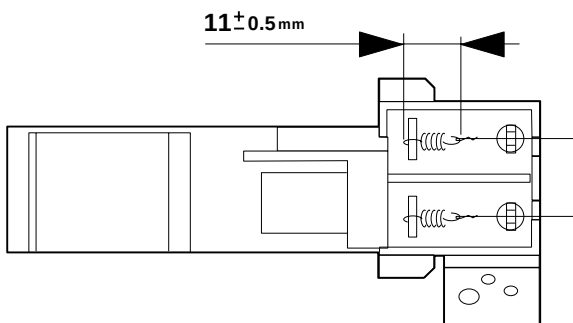


- ③ Make sure the screen grid or saw blade are not in contact with the inside of the MC case (saw blade side).
 ④ To clean the MC saw blade, use a piece of styrofoam. Stick to the saw blade perpendicularly to remove dirt.

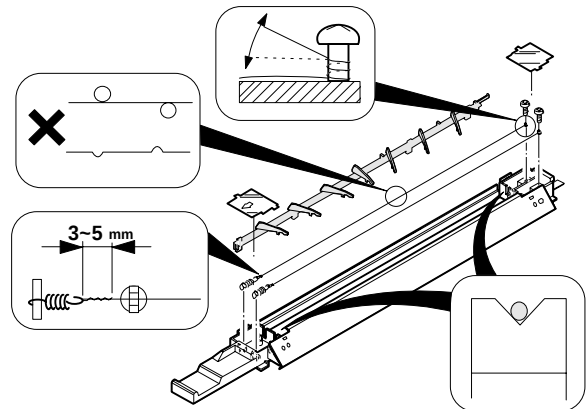


B. Transfer/separation charger unit

- ① The charger SP length is 11 ± 0.5 mm.



- ② Make sure the charger wire is not twisted or kinked. Make sure it is properly settled in the wire positioning groove in each holder.

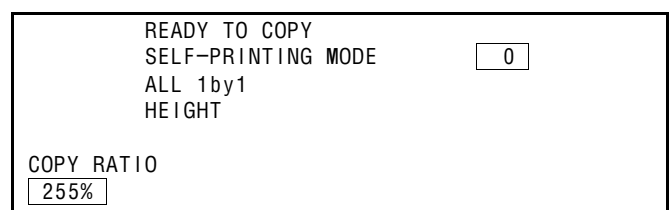
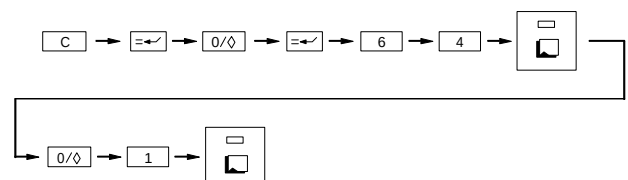


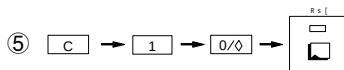
- ③ Make sure the charger case is clear of oil, contamination or foreign matter.
 ④ Clean the wires with alcohol, if contaminated.

3. Laser unit

(1) Checking printing by laser unit (adjusting distortion by self-printing mode)

- ① Remove the right and left document guides and remove the table glass.
 ② Remove the dark box cover and LSU lead wire cover.
 ③ Open the front cabinet and remove the duct and process guide rail.
 ④ Execute SIM 64-1.

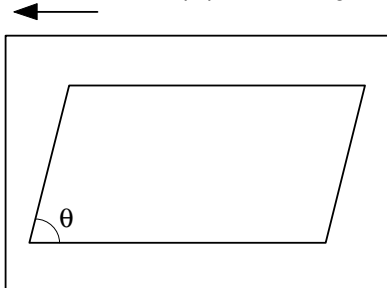




A copy showing a checked pattern in self-printing mode is made.

(Example)

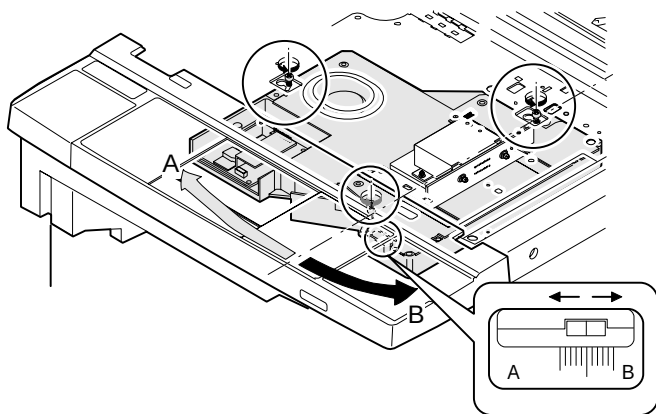
Direction in which paper is discharged



⑥ Loosen the laser unit fixing screw.

If $\theta > 90^\circ$, move the laser unit in the direction of B so that θ is 90° .

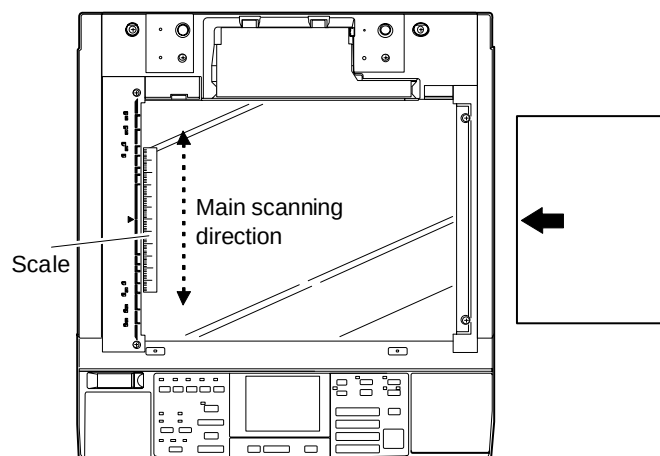
If $\theta < 90^\circ$, move the laser unit in the direction of A so that θ is 90° .



4. Optical section

(1) Adjusting magnification in main scanning direction

① Lay a scale on the document table, as shown below.



② Make a normal (100%) copy of A4 or letter size paper.

③ Compare the length of the scale image on the copy with the length of the actual scale.

④ Find the copy magnification correction rate in the main scanning direction by using the following equation.

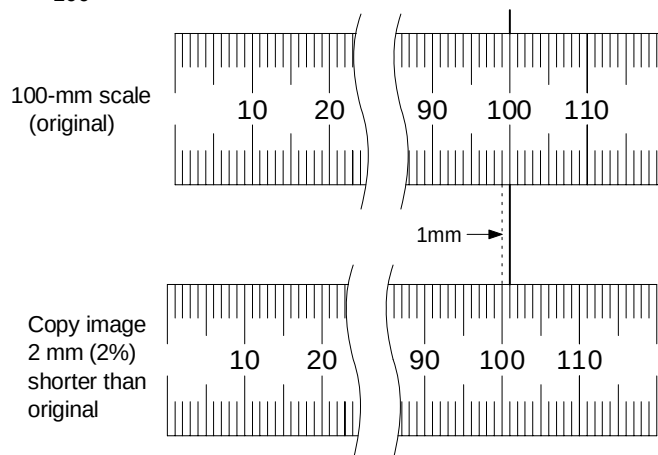
$$\text{Copy magnification correction rate in main scanning direction} = \frac{\text{the size of document} - \text{the size of copy image}}{\text{the size of document}} \times 100\%$$

(Example)

Put a scale on the document so that the 50-mm marking is positioned at the center of the document.

Copy magnification correction rate in main scanning direction

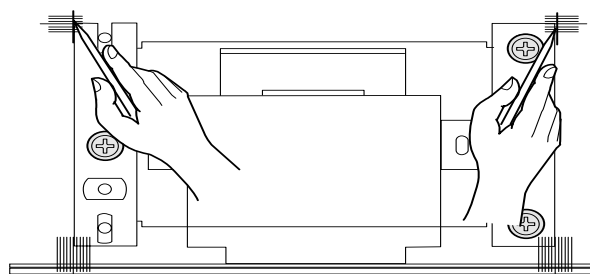
$$= \frac{100 - 98}{100} \times 100 = 2$$



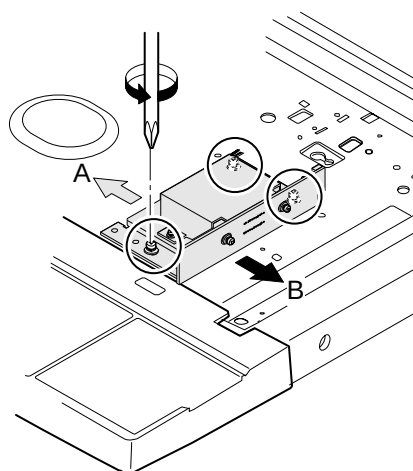
⑤ Remove the right and left document guides and remove the table glass.

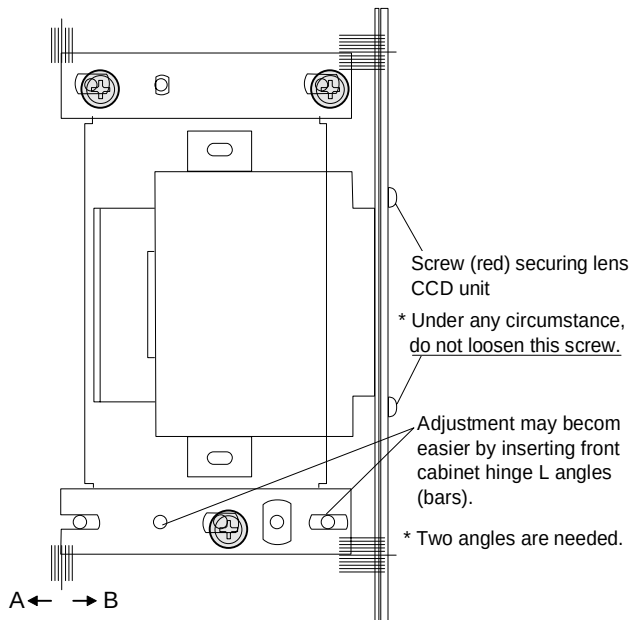
⑥ Remove the dark box cover.

⑦ Draw lines on the lens CCD unit fixing plate, as shown below.



⑧ Loosen the three red screws securing the lens CCD unit fixing plate.





If the copy image is longer than the document, move the unit in the direction of B.

If the copy image is shorter than the document, move the unit in the direction of A.

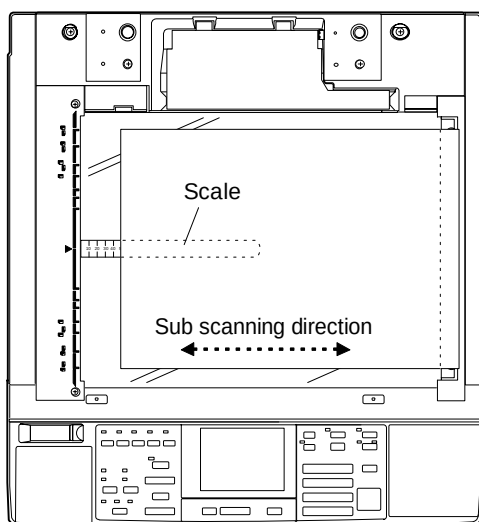
(The length varies in steps of 0.2% by every 1 marking.)

Note: Under any circumstances, the red lens CCD unit fixing screw should not be removed.

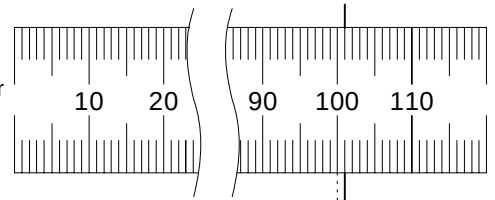
(2) Adjusting magnification in sub-scanning direction

- ① Lay a scale on the document table and execute SIM 48-02. The machine enters the warm-up cycle and the ready lamp comes on. At the same time, the current magnification setting is displayed (any of 0 – 20). Make a normal (100%) copy and find the copy magnification correction rate.

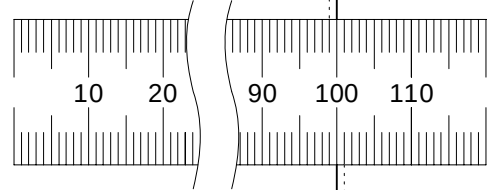
$$\text{Copy magnification correction rate (MRCP)} = \frac{\text{the size of document} - \text{the size of copy image}}{\text{the size of document}} \times 100 (\%)$$



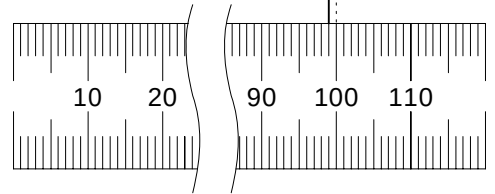
(Example 1)
Copy A Shorter
than the actual
size



Scale
(Original)



(Example 1)
Copy B Longer
than the actual
size



- ② Change the displayed value by using the copy magnification correction rate obtained in step 1.

$$(\text{Input value}) = (\text{preset value}) + (\text{copy magnification correction rate } \%) \times 10$$

- Example 1: $20 = 10 + 1 \times 10$
- Example 2: $10 = 10 + (-1 \times 10)$

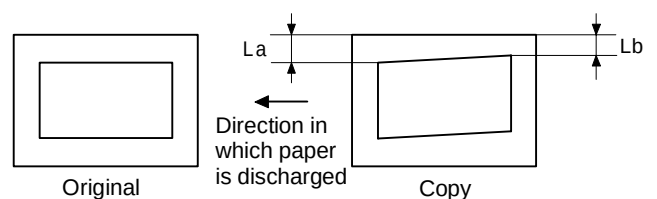
Enter the input value and turn the print switch ON. The entered value is stored in memory and the ready lamp goes out.

- ③ Release SIM 48-02.

(Note): Remember that the entry of simulating setting is up to 20.

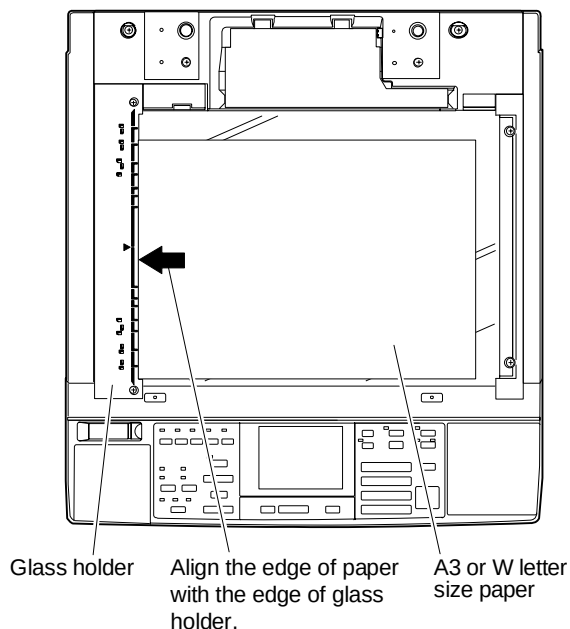
(3) Adjusting distortion in longitudinal direction

This adjustment should be performed to correct the problem shown below.



- When the mirror base drive wire is replaced.

- ① Set a sheet of white A3 or W letter size paper on the document table as shown below.
- ② Make a normal (100%) copy.
- ③ Measure the widths of the leading and trailing edges of the copy.



If the black belt width at the leading edge (L_a) and the black belt width (L_b) at the trailing edge are the same, there is no need of adjustment. (You can ignore steps 4 ~ 7.)

- ④ Loosen the screws securing the rear frame mirror base drive pulley.

If $L_a > L_b$, turn the rear frame mirror base drive pulley in the direction of A. (Do not move either of the flange or the mirror base drive shaft.)

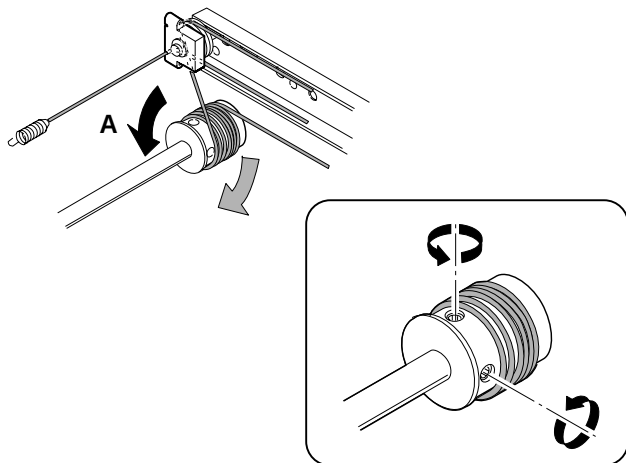
If $L_a < L_b$, turn the rear frame mirror base drive pulley in the direction of B. (Do not move either of the flange or the mirror base drive shaft.)

- ⑤ Tighten the screw securing the mirror base drive pulley.

- ⑥ Repeat steps ① to ③.

- ⑦ If $L_a = L_b$, carry out steps ④ and ⑤. (If $L_a = L_b$, adjustment is over.)

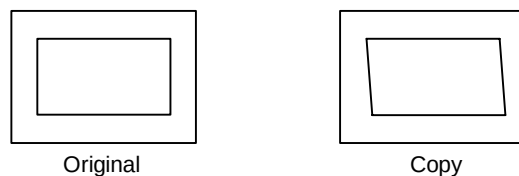
Repeat steps ① to ⑥ until $L_a = L_b$.



(4) Adjusting distortion in lateral direction

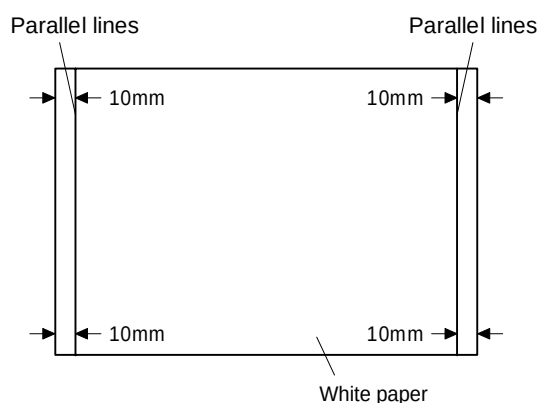
If a copy image has a distortion in the lateral direction (or squareness against the scanning direction) without showing any distortion in the mirror base unit rail height.

This adjustment should be performed if the phenomenon given below appears.



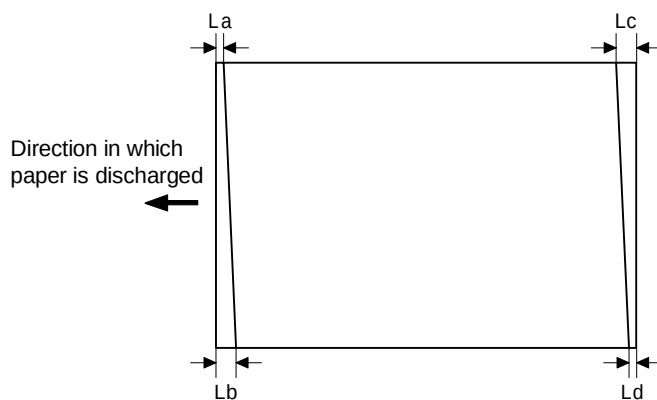
- ① Preparing adjustment document

Draw two lines correctly 10 mm away in parallel with each edge of a sheet of A3 or W letter size white paper.



- ② Make a normal (100%) copy on a sheet of A3 or W letter size paper.

- ③ Measure the following distances (L_a , L_b , L_c , and L_d) in the illustration below.



Adjustment

- ① Adjust by moving the mirror base B rail height up and down (in the direction of indicated by the big arrow).

If $L_a > L_b$, move the paper exit-side mirror base B rail upward by half the difference between L_a and L_b .

If $L_a < L_b$, move the paper exit-side mirror base B rail downward by half the difference between L_b and L_a .

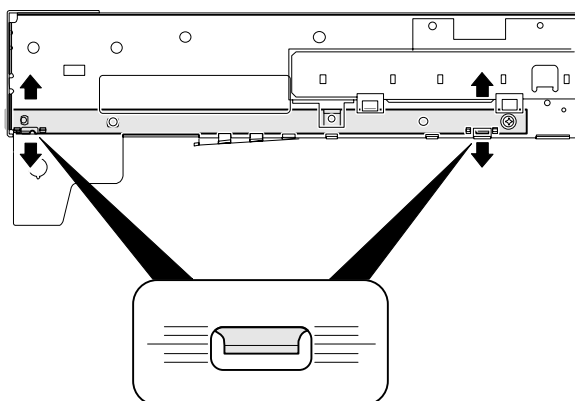
Example: If L_a is 12 mm and L_b is 9 mm, move the paper exit-side mirror base B rail 1.5 mm upward.

If $L_c > L_d$, move the paper feed-side mirror base B rail downward by half the difference between L_c and L_d .

If $L_c < L_d$, move the paper feed-side mirror base B rail upward by half the difference between L_d and L_c . (When moving the mirror base rail, hold the mirror base rail handle.)

- ② Adjust the mirror base rail properly using step 1, so that $La = Lb$ and $Lc = Ld$.
- ③ After adjustment, turn the mirror base drive pulley by hand to operate both the mirror bases A and B fully, to make sure that each mirror base does not interfere with other parts.

(Note): If the mirror base rail is moved extremely, the mirror bases might interfere with other parts.



(5) Adjusting leading edge position of copy

The leading edge position of copy can be adjusted by executing SIMS 50-01 and 50-02.

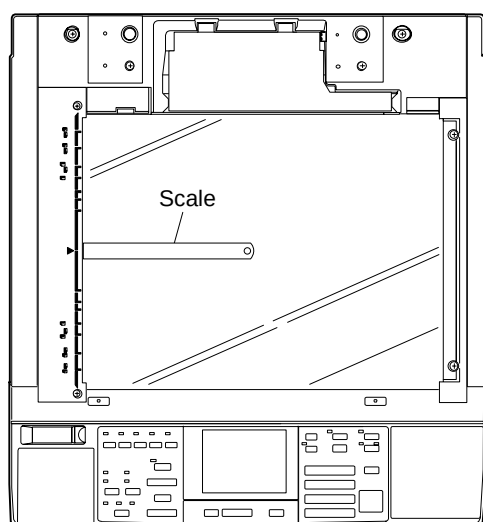
(normal 100% copy) Image loss: 0 ~ 3 mm
(at leading and trailing edges)

Void area: 1 ~ 3 mm

To adjust the leading edge of the copy, it is necessary to adjust the tray (cassette) and manual feed positions.

<In the case of setting by executing SIM 50-01>

- ① Lay a scale on the document table.



- ②
- C → $\frac{\square}{\square}$ → 0/0 → $\frac{\square}{\square}$ → 5 → 0/0 →  →  Press keys in this order.

(Execute SIM 50.). After the machine has warmed up, the ready lamp comes on. At the same time, the current setting of the leading edge position is displayed.

(Cassette adjustment)

CASSETTE ADJUSTMENT			
RRC_A	[XX]	_____	60
RRC_B	[XX]	_____	0
DEN_B	[XX]	_____	20
0~99			

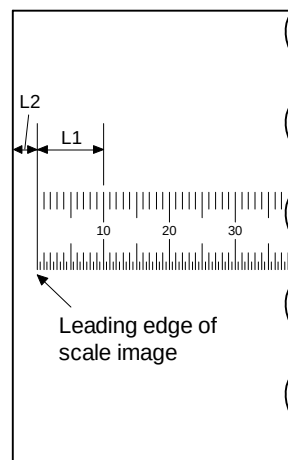
Enter values 60, 0, and 20 for RRC-A, RRC-B and DEN-B.

- ③ Set the magnification to 400% and make a copy.

- Enlargement key → (set for 400%, ready) → 

(A copy is made in a magnification of 400%.)

In SIM 50-01, measure the distances L1 and L2 on the copy, find the values of RRC-A and RRC-B using the equation give below.



Enlargement copy (400%)

L1: Distance from the leading edge of the scale image to the 10-mm marking (mm)

L2: Distance from the edge of the paper to the leading edge of the scale image (mm)

Equation

$$\text{RRC-A} = 60 + (\text{L1} \times 10 - 320)/4$$

$$\text{RRC-B} = \text{L2} \times 10 - 20$$

- ④ Enter the values of RRC-A and RRC-B obtained by the above equation.

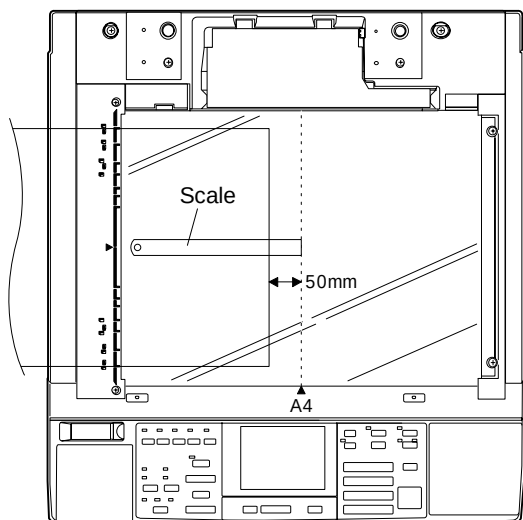
Example:

L1 = 34 and L2 = 6.5

$$\text{RRC-A} = 60 + (34 \times 10 - 320)/4 = 65$$

$$\text{RRC-B} = 6.5 \times 10 - 20 = 45$$

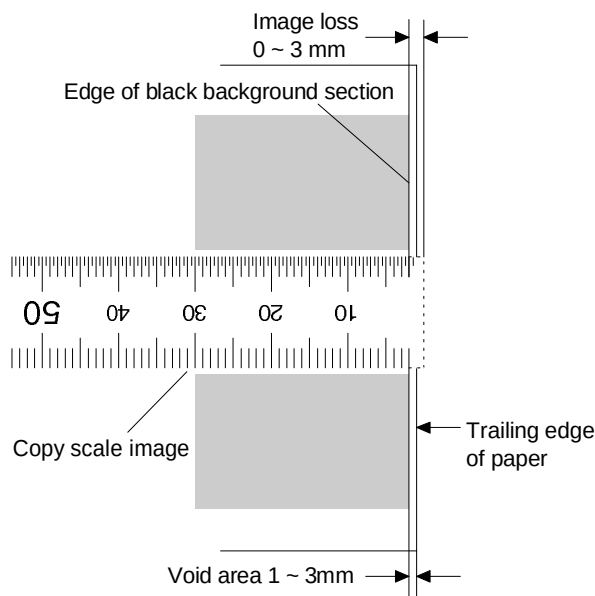
- ⑤ Make copies in magnifications of 400%, 100% and 50% each, and check variations in the leading edge positions among these magnification settings. (about 1 mm)
- ⑥ Lay a scale and a sheet of A3 or W letter size white paper on the document table, as shown below.



- ⑦ Make a copy in a magnification of 100%. Make sure the trailing edge of the black background area falls on the scale image in a position 1 to 3 mm away from its edge. If not, change the DEN-B setting (trailing edge void).

Increasing the setting by one increases the void area about 0.1 mm; decreasing the setting by one decreases the void area about 0.1 mm.

Normal copy (100%)



- ⑧ Change the tray selection mode from cassette to manual, using the tray selection key. Repeat steps 5 to 7. (There is no need to adjust RRC-A. RRC-B and DEN-B need to be adjusted.)
- ⑨ Press the Clear key to release SIM 50-01.

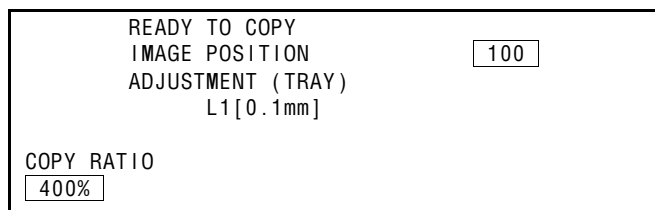
The RRC-A setting can be adjusted in steps of 0.1 mm. Increasing the setting increases the image loss (the document reading start point is delayed); decreasing the setting reduces the image loss (the document reading start point is advanced).

The RRC-B setting can be adjusted in steps of 0.1 mm. Increasing the setting reduces the void area at the leading edge of the paper; decreasing the setting increases the void area.

<In the case of setting by executing SIM 50-02.>

In SIM 50-02, the leading edge can be easily adjusted by setting the values of L1 and L2.

- ① Lay a scale on the document table.
- ② (Execute SIM 50-02.) After the machine has warmed up, the ready lamp comes on. At the same time, the display appears like this. (cassette adjustment)



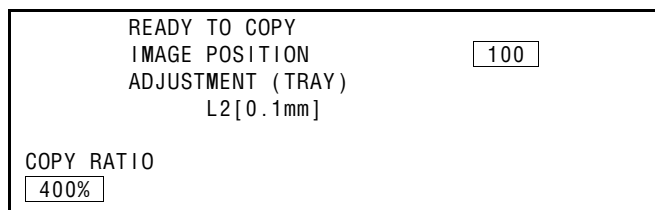
- ③ Make sure the "cassette" is selected. Set L1 to "0".

If the current setting is "manual", switch to "cassette" using the tray selection key.

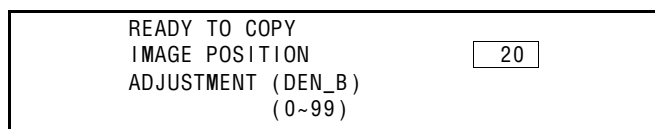
* By setting L1 to "0", the following adjustment values are automatically set.

Image loss setting:	20
Leading edge void (DEN-A):	20
RRC-A:	60
RRC-B:	0
Trailing edge void (DEN-B):	20

- ④ Lay a scale on the document table.
- ⑤ Make a copy in a magnification of 400%. (The magnification is automatically set to 400% when SIM 50-02 is executed.)
- ⑥ Measure the distances L1 and L2 on the copied image and enter the measured values in steps of 0.1 mm on the operation panel display.
- The screen can be switched over by using the message scroll key (→).



- ⑦ Make a copy in a magnification of 100%. Check the trailing edge void. Lay a scale and a sheet of A3 or W letter size white paper on the document table.
- ⑧ Make a copy in a magnification of 100%. Make sure the trailing edge of the black background area falls on the scale image in a position 1 to 3 mm away from its edge. If not, change the DEN-B setting (trailing edge void).



Increasing the setting by one increases the void area about 0.1 mm; decreasing the setting by one decreases the void area about 0.1 mm.

- ⑨ Change the tray selection mode from cassette to manual, using the tray selection key. Repeat steps 5 to 7. (There is no need to adjust RRC-A. RRC-B and DEN-B need to be adjusted.)

READY TO COPY	
IMAGE POSITION	100
ADJUSTMENT (MFT)	
L2 [0.1mm]	
COPY RATIO	400%

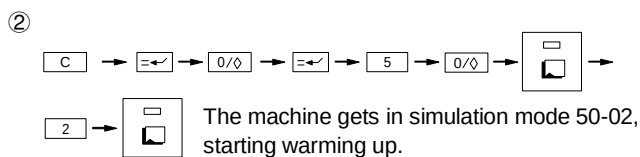
- ⑩ Press the Clear key to release SIM 50-02.

The L1 setting is adjusted in steps of 0.1 mm. Increasing the setting increases the image loss (the document reading start point is delayed); decreasing the setting reduces the image loss (the document reading start point is advanced).

The L2 setting is adjusted in steps of 0.1 mm. Increasing the setting reduces the void area at the leading edge of the paper; decreasing the setting increases the void area.

Adjustment

- ① Lay a scale on the document table.

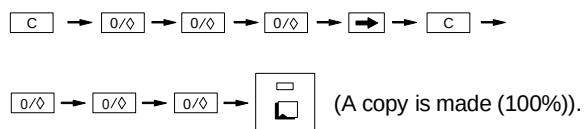


- ③ Display

- L1: Leading edge displacement in 400% (ooo mm, 3 digits)
- L2: Leading edge displacement in 100% (xxx mm, 3 digits)

Enter the values of L1 and L2 in steps of 0.1 mm.

- ④ Using the message feed key and the numeric keypad, set the values of A and b to 0. Make copies in magnifications of 100% and 400%.



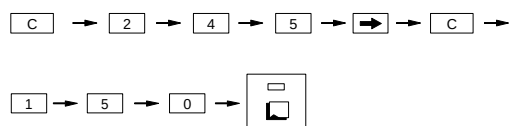
- Enlargement key → set for 400%, ready) →

- Enlargement key (set for 400%, ready)
(A copy is made in a magnification of 400%).

- ⑤ Measure the distance from the leading edge of the paper to the leading edge of the scale image of each copy (400% and 100%), and enter the measured values of L1 and L2 using the message feed key and the numeric keypad. This automatically calculates the values of RRC-A and RRC-B in SIM 50-01 and stores the results in memory.

Input method

If the L1 is 24.5 mm and L2 is 15.0 mm,



- ⑥ After that, check and adjust the displacement, image loss and void among different magnifications in the same manner as in SIM 50-01.

5. Document detection section

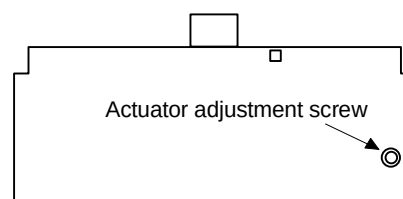
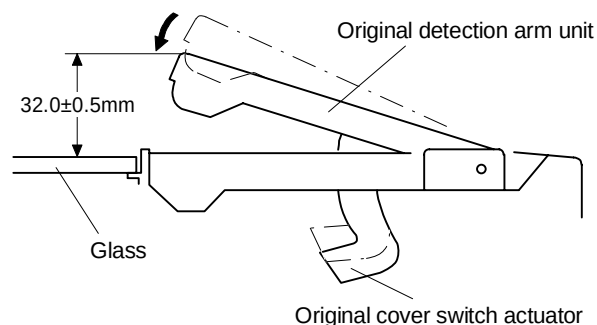
(1) Adjusting document detection arm unit

- ① Adjusting OC switch On timing

(This adjustment should be performed at the manufacturer.)

Execute SIM 41-01.

- Loosen the document cover switch actuator adjustment screw move the actuator, so that the OC switch changes from reverse video to normal display when the height from the table glass to the arm unit top is 32.0 ± 0.5 mm with the document detection arm unit being tilted slowly. (If the document cover switch On timing is not proper, the document detection function might malfunction.)



(2) Adjusting document detection level

<AB format>

SIMULATION NO.41- 1

ORIGINAL SIZE PHOTSENSOR CHECK

---	OCSW
B5	
A4	
B5R	
A4R	
B4	
A3	

[POSE]KEY:END DISPLAY

<Inch format>

SIMULATION NO.41- 1

DOCUMENT SIZE PHOTSENSOR CHECK

5•1/2" x 8•1/2"	
11•1/2" x 8•1/2"	OCSW

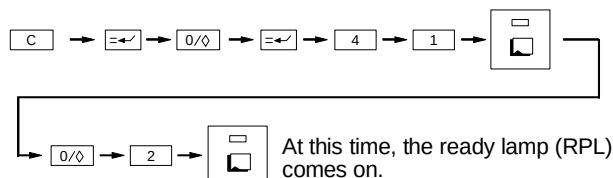
11•1/2" x 8 51/2" (R)	

11•1/2" x 14"	
11•1/2" x 17"	

(Entering document detection judgement level)

The reference value which determines whether an document is present or not is entered. In addition, the detection of the sensor is monitored based on this value.

①



② With the document cover opened and no document present, turn the print switch (PSW) ON. The ready lamp goes out and then comes on again. (The non-document sensor level is read.)

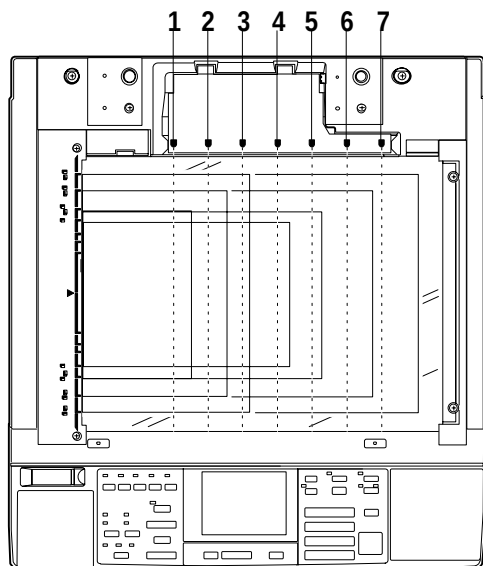
SIMULATION NO.41- 2

ORIGINAL SIZE PHOTSENSOR SETUP
SET AN A3-SIZE COPY PAPER ON THE
ORIGINAL TABLE, AND TURN ON THE PRINT
SWITCH WITH THE ORIGINAL COVER OPENED.

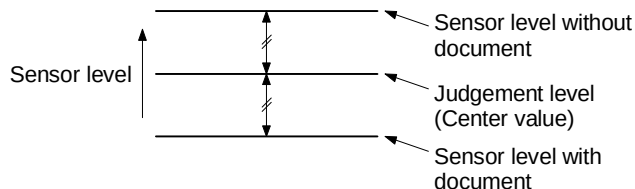
[POSE]KEY:END DISPLAY

③ Lay a sheet of A3 or W letter size transfer paper on the document table. With the document cover opened, turn the print switch ON. (The document-present sensor level is read, and the judgement level which determines whether an document is present or not is stored in memory.)

(It is possible to check the sensor levels in SIM 41-03.)

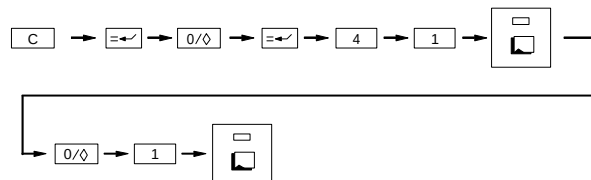
**<Reference> Detection level setting principle**

The sensor level with document and the sensor level without document are read, and the average (central value) is stored in memory.

**(Sensor check mode)**

Execute SIM 41-01 to check photo sensor operation. (The system automatically enters the check mode after document detection judgement level is entered.)

Photo sensor checking method



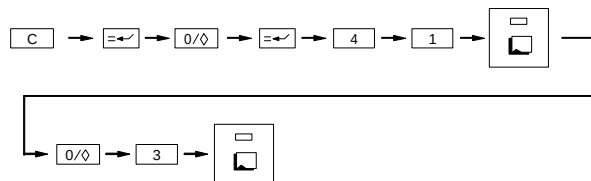
* The layout of the photo sensors are as follows:

Receiving shaft	Paper size	
	AB series	Inch series
1	—	
2	B5	
3	A4	Letter
4	B5R	
5	A4R	Letter-R
6	B4	Legal
7	A3	W-letter

(Checking light reception level and judgement level)

The light reception level and judgement level can be checked by executing SIM 41-3.

① Light reception level and setting level display mode



<AB format>

SIMULATION NO.41- 3

ORIGINAL SIZE PHOTSENSOR SETUP		
	RCV LV	SETUP
---	---	---
B5	XXX	XXX
A4	XXX	XXX
B5R	XXX	XXX
A4R	XXX	XXX
B4	XXX	XXX
A3	XXX	XXX

[POSE]KEY:END DISPLAY

<Inch format>

SIMULATION NO.41- 3

DOCUMENT SIZE PHOTSENSOR SETUP		
	RCV LV	SETUP
5•1/2" x 8•1/2"	XXX	XXX
11•1/2" x 8•1/2"	XXX	XXX
---	---	---
11•1/2" x 8•1/2" (R)	XXX	XXX
---	---	---
11•1/2" x 14"	XXX	XXX
11•1/2" x 17"	XXX	XXX

- The light reception level and the setting level during the execution of the simulation are displayed on the LCD.

6. Others

(1) Printing off-center

The printing off-center can be adjusted using manual paper feed as a reference, in the following manner:

- ① Check the setting of printing off-center in the manual paper feed mode, by executing SIM 50-10.
- ② Using manual paper feed setting as a reference, adjust the document (OC cover) off-center. (refer to 5-(2).)
- ③ Execute SIMs 50-10 and 50-11, adjust the settings of the tray (cassette) and ADU off-center according to the setting of manual paper feed.
- ④ Adjust the tray and ADU off-center, referring to the setup procedure.

(The tray and ADU off-center should be adjusted not by simulations, but by mechanical means.)

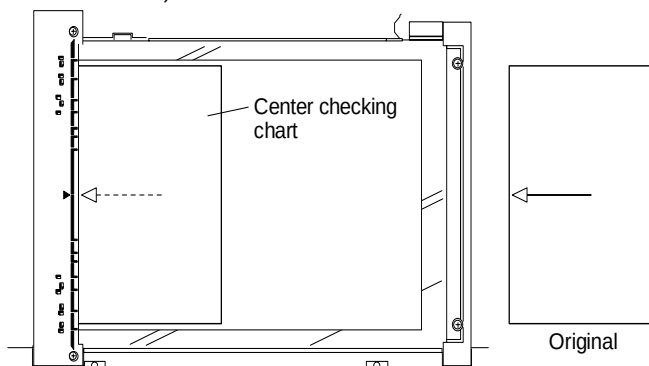
(2) Adjusting document off-center

This adjustment should be performed in the manual paper feed mode.

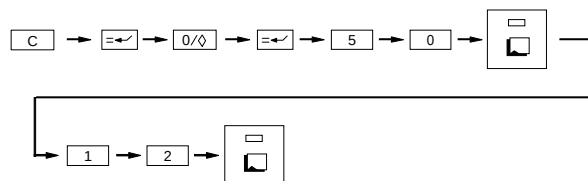
A. Document table

- ① Lay a reference document on the document table.

(Prepare a reference document carrying an arrow at its center, as shown below.)



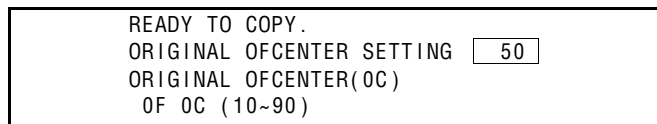
- ② Execute SIM 50-12.



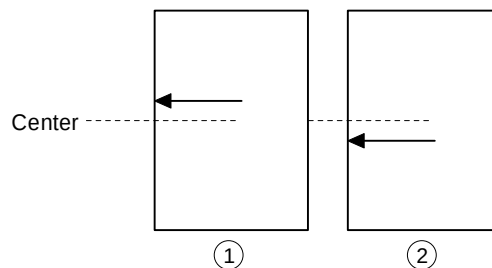
The following message appears on the display.



After warming up,

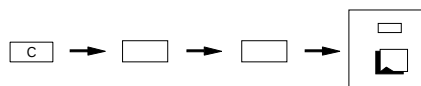


- ③ The RPL lamp comes on. Turn the print button On produces a copy of the reference document. Changing the setting by 1 moves the arrow 0.25 mm to respective directions.



- If the arrow is located above the center line as shown in ①, increase the value displayed on the COPIES MADE section.
- If the arrow is located below the center line as shown in ②, decrease the value displayed on the COPIES MADE section.

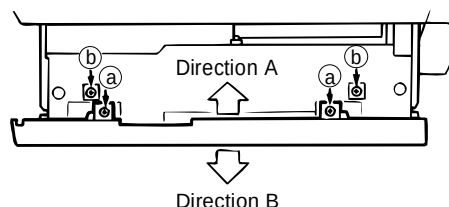
The value displayed can be changed by carrying out the following key operation.



7. Paper tray 1/2

(1) Adjust any center misalignment.

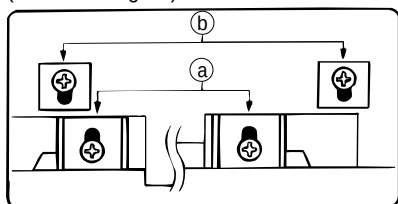
Make a copy, and if there is any center misalignment such as that shown in Fig. 1 or Fig. 2, loosen the four screws (indicated by the arrows) which secure the front cabinet panel.



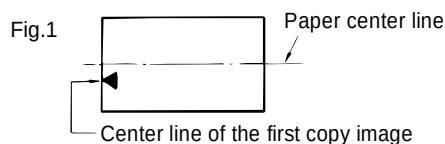
NOTE:

The mounting screws ① and ② will be in the symmetrical positions when they are tightened, as shown right.

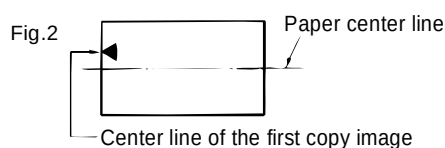
(Reference figure)



- If misaligned as shown in Fig. 1
Move the front cabinet panel in direction A and retighten the two mounting screws ① and then the other two screws ②. Make another copy to confirm that the center is no longer misaligned.



- If misaligned as shown in Fig. 2
Move the front cabinet panel in direction B and retighten the two mounting screws ① and then the other two screws ②. Make another copy to confirm that the center is no longer misaligned.

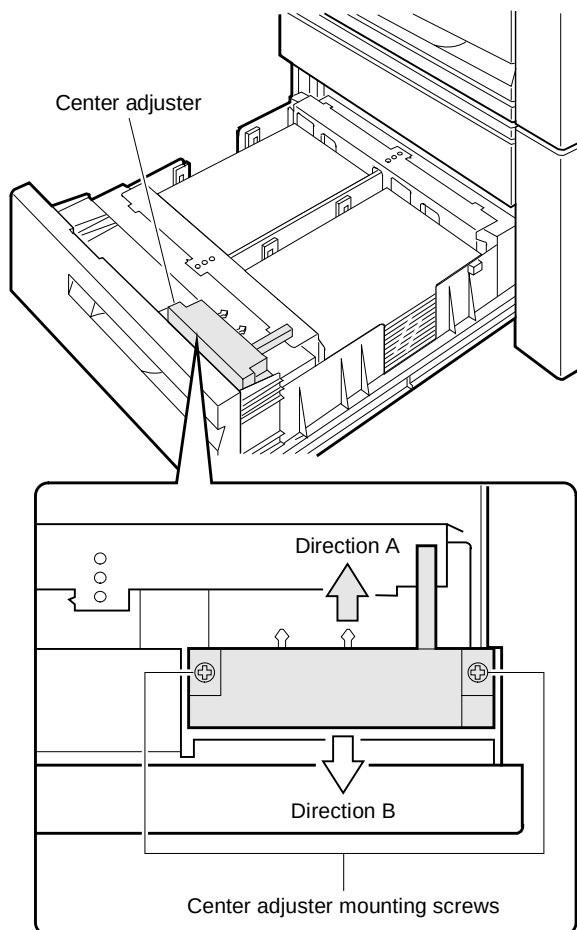


8. Paper tray 3 (LCC tray)

(1) Adjust any center misalignment.

No adjustment should be needed for the unit as it is factory-set. However, if it is off-center, adjust it according to the following procedure.

Make a copy. If it is off center as shown in fig. 1 or fig. 2, loosen the two center adjuster mounting screws attached to the cassette and adjust it following the procedure below.

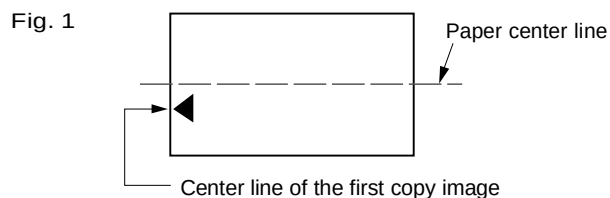


[Note]

When mounting the center adjuster, make sure that the mounting screws are positioned in the same spot in their respective slots.

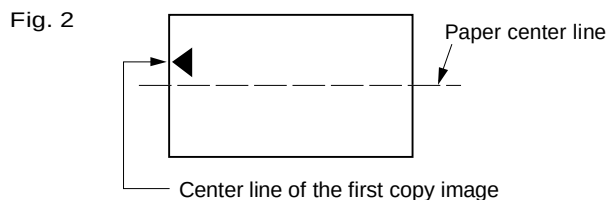
When off center as shown in fig. 1

Move the center adjuster in direction A and secure it with the two mounting screws. Make a copy to check whether it is centered properly.

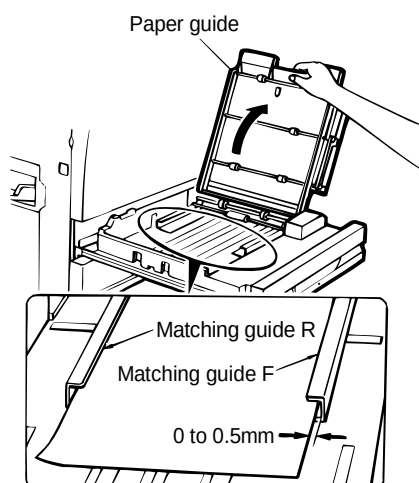


When off center as shown in fig. 2

Move the center adjuster in direction B and secure it with the two mounting screws. Make a copy to check whether it is centered properly.

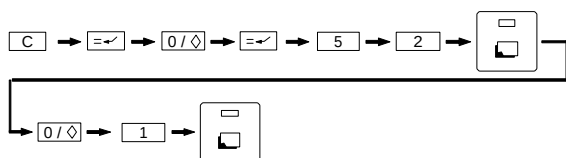
**9. ADU****(1) Adjust the matching guide.**

- ① Mark a duplex copy.
- ② Remove the duplex unit from the copier main unit, and open the paper guide.
- ③ Set the copy that has been made in step ① or a sheet of the same size on the duplex tray. Align the paper to either alignment guide F, or R, to check the gap. Check to see if the gap between either of the alignment guides and the paper is from 0 to 0.5 mm.



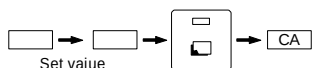
When the matching guide is not aligned properly, perform the following Procedure to adjust the matching guide.

A. Set the mode using the following key operation on the copier main unit:

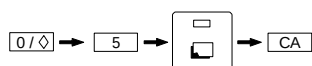


Then current set value is displayed.

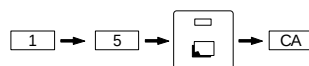
B. To set the adjustment mode, input the set value as shown below after the operation above:



(Example) To set a value (5) with one digit, perform the following operation:



(Example) To set a value (15) with two digit, perform the following operation:



Changing the set value by (1) causes the matching guide width to move 0.5mm to 0.6mm.

※ Criterion for changing set value

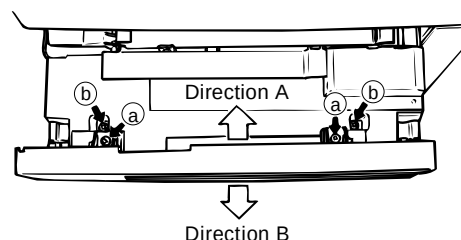


(Guide width becomes larger.) (Guide width becomes smaller.)

C. Perform the steps ① to ③ again to check the width.

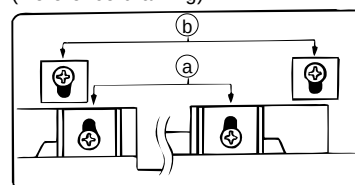
(2) Adjust the center misalignment

When copy result shows center dislocation as shown in Fig. 1 and Fig. 2, loosen the four screws (indicated by ↓) that fix the front cabinet.

**Caution:**

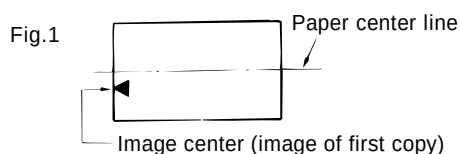
When you fix the front cabinet, the gap between a fixing screw and the cabinet is symmetrical for the fixing screw sections a① b②

(Reference drawing)



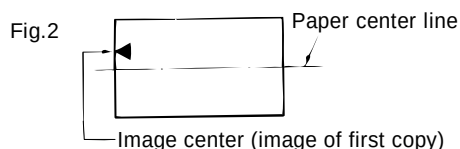
※ In case of Fig. 1

Move the front cabinet to the direction A, tighten the fixing screws a②(2 pcs.) and b②(2 pcs.) in this order, and make a copy again to check that there is no center dislocation.



※ In case of Fig. 2

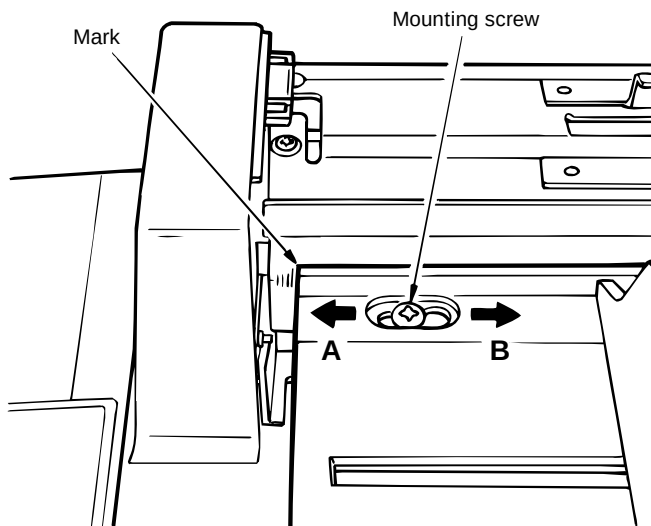
Move the front cabinet to the direction B, tighten the fixing screws a①(2 pcs.) and b①(2 pcs.) in this order, and make a copy again to check that there is no center dislocation.



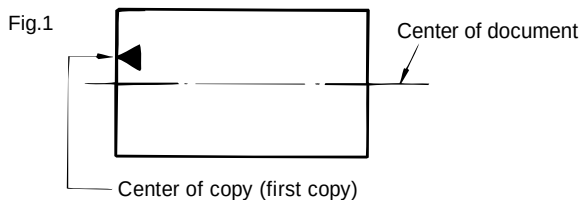
10. RADF

(1) Adjust any center misalignment.

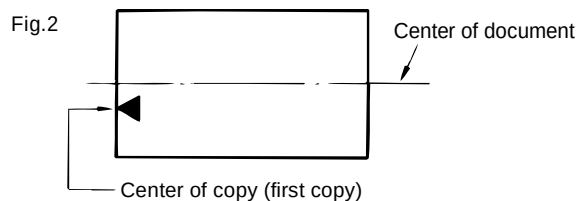
Set the original on the tray and make a copy. When the copy slips out of the center as Fig. 1 or Fig. 2, open the ADF cover, loosen the two mounting screws and adjust the tray to correct position.



- ★ Fig. 1
Move the tray in the direction A and secure it with the two mounting screws. Make sure that it is centered properly.

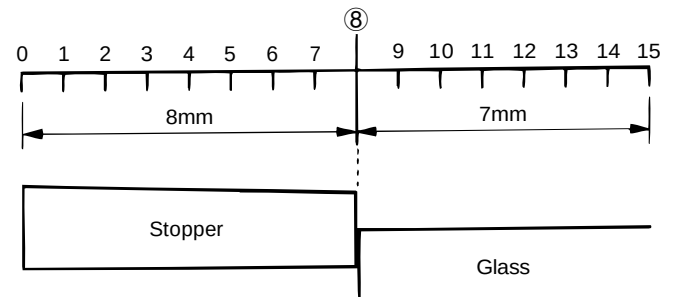


- ★ Fig. 2
Move the tray in the direction B and secure it with the two mounting screws. Make sure that it is centered properly.



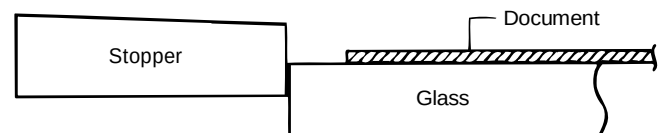
(2) Document lead edge position adjustment.

- The document lead edge position for RADF can be determined using the SIM 53.
- For it had been factory set that the lead edge should stop on the location 8, but it may be needed to make adjustment. It can be adjusted within a range of 8mm (8 steps) at the stopper side and 7mm (7 steps) at the glass side. Adjustment can be done for each mode of single sided, double sided, and light weight paper.

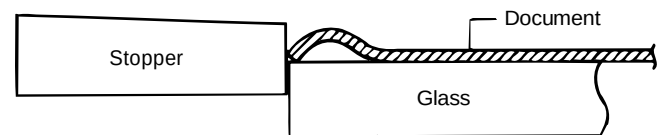


• Setup example

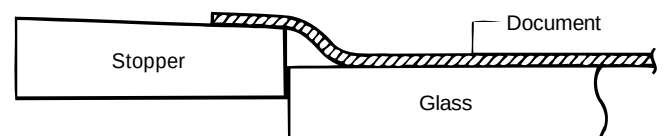
- (1) If the lead edge of the document was still not to the stopper, enter an optimum value.



- (2) If the image at the lead edge of the document were to deform, enter an optimum value to move to the glass side.



- (3) If the document were to override the stopper, enter an optimum value to move it to the glass side.



5. Setting input activation

SIMULATION NO.XX-XX

X X X X SETTING [XXX] : XXX
(XXX~XXX)

INPUT SETUP VALUE AND PRESS PRINT SW

In the setting input screen, the effective range is indicated in () and the current setting is indicated in []. Behind the ":" is an input field where the cursor blinks to prompt the operator to enter data.

- If there is no entry of data in the input field:

- Press [PRINT] to sound the error buzzer to prompt the operator to enter data. (In the case where the system is set for "Key click sound ON".)
- Pressing the [PAUSE] key returns the screen to the preceding screen, without setting any data.

[Note] The main code/sub code are not cleared.

- If there is the entry of data in the input field:

- If the entered data is valid, the current setting in [] on the screen and in memory is updated by pressing the [PRINT] key. (The current setting in [] is rewritten.) After that, the screen returns to the preceding one.

[Note] The main code/sub code are not cleared.

- Data in the input field can be cleared by pressing [CLEAR].

The entry of data is displayed, starting at the leftmost part of the field. If data of more than the specified digits is entered or if any invalid key is pressed, the input error buzzer sounds and the entry of that data or the key is ignored. (In the case where the system is set for "Key click sound ON".)

6. Exception processing

- If any "trouble" is received during the execution of a simulation, the trouble code is displayed on the 7-segment display and the system waits for [CA]. The trouble main/sub code modes on the 7-segment display can be switched over by pressing [PRINT].

[Note] Any trouble code is not displayed during the execution of a simulation.

- If the [PAUSE] key is pressed during the execution of a simulation, the simulation is immediately suspended and the screen returns to the preceding one.

[Note] The main code/sub code are not cleared.

- If [CA] is pressed during the execution of a simulation, the execution of the simulation is stopped and the simulation is terminated.

7. Simulation list

Main code	Sub code	Content	Remarks	Write in memory	Adjustment range
S-01		Checks optical system.			
S-01	01	Checks mirror activation of optical system.			
S-01	02	Displays operating status of optical system sensor.			
S-02		Checks RADF aging.			
S-02	01	RADF aging test.			
S-02	02	Displays the operating status of the RADF sensor.			
S-02	03	Checks forward rotation of paper feed motor.			
S-02	04	Checks reverse rotation of paper feed motor.			
S-02	05	Checks forward rotation of transport motor.			
S-02	06	Checks reverse rotation of transport motor.			
S-02	07	Checks rotation of paper eject and inversion motor.			
S-02	08	Checks paper feed solenoid activation.			
S-02	09	Check inversion solenoid activation.			
S-03		Checks sorter activation.			
S-03	02	Displays the operating status of sorter sensor.			
S-03	03	Checks the activation of the transport motor.			
S-03	04	Checks the activation of the bin shift motor.	SF-S15 only		
S-03	05	Checks the activation of the fan motor.			
S-03	06	Checks the activation of the gate solenoid.			
S-03	08	Checks the activation of the staple motor.	SF-S53N only		
S-03	09	Checks the activation of the paper holder solenoid.	SF-S53N only		
S-03	10	Checks the activation of the guide bar motor.	SF-S53N only		
S-04		Checks the activation of the desk.			
S-04	02	Displays the operating status of the desk sensor.			
S-04	03	Checks the upper tray cassette size switch.			
S-04	04	Checks the lower tray (LCC) cassette size switch.			
S-04	06	Checks the activation of the transport motor.			
S-04	07	Checks the activation of the upper tray lift-up motor.			
S-04	08	Checks the lift-up operation of the lower tray (LCC) cassette.			

Main code	Sub code	Content	Remarks	Write in memory	Adjustment range
S-04	10	Checks the activation of the transport clutch.			
S-04	11	Checks desk load (upper tray paper feed solenoid).			
S-04	12	Checks desk load (upper tray paper feed clutch).			
S-04	13	Checks desk load (lower tray (LCC) paper feed solenoid).			
S-04	14	Checks desk load (lower tray (LCC) paper paper feed clutch).			
S-05		Checks the lighting of lamps.			
S-05	01	Checks operation panel display.			
S-05	02	Checks lighting of heater lamp.			
S-05	03	Checks lighting of copy lamp.			
S-05	04	Checks lighting of discharge lamp.			
S-05	06	Sets copy lamp lighting voltage.		PCU	0-55
S-06		Checks the activation of copier components.			
S-06	01	Copier main switch reset			
S-06	02	Checks the activation of a copier component (PSPP) (Checks drum separation solenoid for activation.).			
S-07		Copy aging test.			
S-07	01	Displays warm-up time and aging test with alert for paper misfeed.			
S-07	02	Displays warm-up time and aging test without alert for paper misfeed.			
S-07	03	Copy aging test without alert for paper misfeed/fusing temperature control.			
S-07	04	Warm-up disabled.			
S-07	06	Intermittent aging.			
S-07	07	Intermittent aging without alert for paper misfeed.			
S-07	08	Displays warm-up time (without aging).			
S-08		Checks developing bias voltage output.			
S-08	01	Sets and checks developing bias voltage. (Auto exposure mode)	Setting is adjustable	PCU	0-700
		(Manual exposure mode)	"	"	0-700
		(Photographic mode)	"	"	0-700
		(Soft photographic mode)	"	"	0-700
		(Toner save mode)	"	"	0-700
		(Printer mode)	"	"	0-700
S-08	02	Sets and checks MHV (charging), GRID (Auto exposure mode).	Setting is adjustable	PCU	200-900
		(Manual exposure mode)	"	"	200-900
		(Photographic mode)	"	"	200-900
		(Soft photographic mode)	"	"	200-900
		(Toner save mode)	"	"	200-900
		(Printer mode)	"	"	200-900
S-08	06	Checks THV (transfer).			
S-08	07	Checks SHV (separation).			
S-09		Checks ADU activations.			
S-09	02	Displays ADU sensor status.			
S-09	03	ADU trailing edge plate aging.			
S-09	04	ADU alignment plate aging.			
S-09	05	ADU loading (DGS).			
S-10		Toner motor aging.			
S-14		Clears troubles (excluding U2/PF trouble).		PCU	---
S-16		Clears U2 trouble.		PCU	---
S-17		Clears PF trouble.		PCU	---
S-20		Clears maintenance counter.		PCU	---
S-21		Maintenance cycle setting.			
S-21	01	Sets maintenance cycle.		PCU	0-5

Main code	Sub code	Content	Remarks	Write in memory	Adjustment range
S-22		Displays counters.			
S-22	01	Displays maintenance counter.			
S-22	02	Displays maintenance counter preset.			
S-22	04	Displays JAM counter.			
S-22	05	Displays total counter.			
S-22	06	Displays developer counter.			
S-22	07	Displays developer preset counter.			
S-22	08	Displays RADF counter.			
S-22	09	Displays tray and ADU counter.			
S-22	10	Displays staple counter.			
S-22	12	Displays drum adjustment counter.			
S-22	13	Displays key operator code.			
S-22	14	Displays ROM version.			
S-22	15	Displays trouble counter.			
S-22	16	Displays copy counter.			
S-22	17	Displays PDA/ZR print counter.			
S-22	20	Displays printer counter.			
S-23		Prints counter/adjustment values.	"Printing is possible after warming up (print PWB is needed.)"		
S-24		Clears special counters.			
S-24	01	Clears JAM counter.		PCU	---
S-24	02	Clears trouble counter.		PCU	---
S-24	03	Clears tray and ADU counter.		PCU	---
S-24	04	Clears RADF counter.		PCU	---
S-24	05	Clears staple counter.		PCU	---
S-24	07	Clears drum adjustment counter.		PCU	---
S-24	08	Clears copy counter.		PCU	---
S-24	09	Clears PDA/ZR printing counter.		PCU	---
S-24	12	Clears printer counter.			
S-25		Checks the activation of the main motor unit.			
S-25	01	Checks activation of main motor drive unit.			
S-25	02	Adjusts automatic developer.		PCU	0-99
S-25	03	Sets toner control ignorance time during warm-up time.		PCU	0-99
S-26		Setting.			
S-26	01	Optional setting.		PCU	0-15
S-26	02	Sets foolscap paper.		PCU	1/2
S-26	03	Sets counter mode.		PCU	0-3
S-26	06	Sets destination.		PCU	1-9
S-26	15	Sets fusing curl correction mode.		PCU	0/1
S-26	18	Sets toner save mode.		PCU	1/2
S-26	26	Sets power save mode.		PCU	0/1
S-26	27	Sets image density mode.		PCU	1/2
S-27		Sets PPC communication parameters.			
S-27	01	Sets PPC communication trouble.		PCU	0/1
S-27	02	Sets PC/Modem telephone number.		PC modem	---
S-27	03	Sets PC/Modem ID number.		PC modem	---
S-27	04	Sets start/end of service.		PC modem	---
S-27	05	Sets tag number.		PCU	---
S-30		Displays the operating status of the paper/cassette sensors.			
S-30	01	Displays the operating status of copier sensors.			
S-30	02	Displays the operating status of paper size detection switch.			
S-41		Checks document size detection sensor.			
S-41	01	Checks document size detection sensor.			
S-41	02	Adjusts document size detection sensor.		PCU	0-255
S-41	03	Displays output value and setting of document size detection sensor.			

Main code	Sub code	Content	Remarks	Write in memory	Adjustment range
S-42		Clears developer counter.		PCU	---
S-43		Sets fusing temperature.			
S-43	01	Sets fusing temperature (normal mode).		PCU	160-205
S-43	02	Sets fusing temperature (economy mode).		PCU	0-45
S-44		Sets process control mode.			
S-44	01	Sets inhibit/enable of each mode of process control.		PCU	0-3
S-44	02	Adjusts DM sensor.			
S-44	03	Adjusts ID sensor.			
S-44	04	Sets standard patch concentration.		PCU	0-255
S-44	07	Checks gain selection between DM/ID sensors.			
S-44	09	Displays process control data.			
S-44	12	Displays DM/ID patch and drum base output.			
S-46		Adjusts exposure level.			
S-46	01	Adjusts exposure level (copy).	Copy function available	PCU	AE: 30-170
					ME: 30-170
					PH: 30-170
					SPH: 30-170
S-46	02	Inputs exposure level adjustment value (setting in each copy mode).		PCU	AE: 0-200
					ME: 0-200
					PH: 0-200
					SPH: 0-200
S-46	03	Inputs exposure level adjustment value (copy).		PCU	See Sim-46-01.
S-46	07	Inputs tone adjustment value (copy).		PCU	AE: 1-20
					ME: 1-20
					PH: 1-20
					SPH: 1-20
S-48		Zoom adjustment.			
S-48	02	Zoom adjustment (scanning direction).	Copy function available	PCU	0-20
					SKN: 0-20
S-50		Adjusts the leading edge position of the copy.			
S-50	01	Adjusts the leading edge of the copy (leading edge adjustment value: RRC_A).	Copy function available	PCU	0-99
		Adjusts the leading edge of the copy (leading edge adjustment value: RRC_B).			0-99
		Adjusts the leading edge of the copy (trailing edge void: DEN_B).			0-99
S-50	02	Adjusts the leading edge of the copy (calculation formula).	Copy function available.	PCU	0-999
S-50	03	Inputs leading edge adjustment value, image loss.		PCU	0-40
		Inputs leading edge adjustment value, leading edge adjustment value (copy). RRC_A			0-99
		Inputs leading edge adjustment value, leading edge adjustment value (copy/cassette). RRC_B			0-99
		Inputs leading edge adjustment value, leading edge adjustment value (copy/manual feed). RRC_B			0-99
		Inputs leading edge adjustment value, leading edge void (copy/cassette). DEN_A			0-99
		Inputs leading edge adjustment value, leading edge void (copy/manual feed). DEN_A			0-99
		Inputs leading edge adjustment value, trailing edge void (copy/cassette). DEN_B			0-99
		Inputs leading edge adjustment value, trailing edge void (copy/manual feed). DEN_B			0-99
		Inputs leading edge adjustment value, leading edge adjustment value (print/cassette). RRC_P			0-99
		Inputs leading edge adjustment value, leading edge adjustment value (print/manual feed). RRC_P			0-99
S-50	05	Adjusts the leading edge of image (print) printer.	Copy function available	PCU	0-99
S-50	10	Adjusts the print off-center (manual feed/cassette/ADU).	Copy function available	PCU	0-99
S-50	12	Adjusts document off-center (OC/RADF).	Copy function available	PCU	10-90
S-50	14	Inputs print off-center adjustment value.		PCU	
S-50	15	Inputs document off-center adjustment value.		PCU	

Main code	Sub code	Content	Remarks	Write in memory	Adjustment range
S-51		Timing adjustments.			
S-51	01	Sets separation nail activation timing.		PCU	20-90
S-51	02	Adjust resist amount, manual feed.	Copy function available	PCU	0-50
		Adjusts resist amount, cassette.	Copy function available	PCU	0-50
		Adjusts resist amount, ADU.	Copy function available	PCU	0-50
S-52		ADU adjustments.			
S-52	01	Sets ADU alignment plate adjustment value.		PCU	1-99
S-52	02	Sets ADU trailing edge adjustment value.		PCU	0-99
S-52	03	Sets ADU drive clutch OFF time.		PCU	0-10
S-53		RADF adjustment.			
S-53	01	Adjusts RADF stopping position (normal paper, face side).			
S-53	02	Adjusts RADF stopping position (normal paper, back side).			
S-53	05	Adjusts RADF resist sensor.		RADF	---
S-53	06	Adjusts RADF eject/inversion sensor.		RADF	---
S-53	07	Adjusts RADF timing sensor.		RADF	---
S-61		Laser output check.			
S-61	01	Checks LSU activation.			
S-61	02	Sets laser power.		PCU	0-15
S-63		CCD activation checks.			
S-63	01	Checks shading.			
S-63	02	Sets shading white plate correction value.		PCU	---
S-64		Self-printing.			
S-64	01	Self-printing.	"Printing is possible after warming up"		
S-67		Printer checks.			
S-67	01	DRAM check.	Printer PWB is needed.		
S-67	02	Centronics port check.	Printer PWB is needed.		
S-67	03	Adjusts Centronics port timing.	Printer PWB is needed.		
S-67	06	Writes flash font.	Printer PWB is needed.		
S-67	07	Compares and checks flash font.	Printer PWB is needed.		
S-67	08	Writes/compares and checks flash font.	Printer PWB is needed.		
S-67	09	Flash test.	Printer PWB is needed.		
S-67	10	Flash font sum check.	Printer PWB is needed.		
S-67	11	Sets select In signal.	Printer PWB is needed.		0/1
S-67	12	Flash program writing	Printer PWB is needed.		
S-67	13	Flash program data comparison check	Printer PWB is needed.		
S-67	14	Flash program data write/comparison check	Printer PWB is needed.		
S-67	15	Flash program data sum check	Printer PWB is needed.		

8. Detail of simulation

Main code	Sub code	Item	Content	Adjustment range
01		Checks optical system.	SIMULATION NO. 1- _ 1.OPTICAL SYSTEM CHECK 2.OPTICAL SENSOR CHECK INPUT SUB NO. AND PRESS PRINT SWITCH	
	01	Checks mirror activation of optical system.	- Execution wait mode SIMULATION NO. 1- 1 OPTICAL SYSTEM CHECK COPY RATIO 100% PRINT SWITCH: EXECUTE SIMULATION - Scanning in progress SIMULATION NO. 1- 1 OPTICAL SYSTEM CHECK COPY RATIO 100% [PAUSE]KEY: END ACTIVATION [Content] When the [PRINT] key is pressed after entering a sub code, the copier enters the execution wait mode, with the ready lamp coming on and the copy ratio indicating 100%. At this time, the copy ratio can be changed with the copy ratio key. After that, if the [PRINT] key is pressed, the ready lamp goes out and the optical system is initialized. The optical system is scanned once at the specified copy ratio. After scanning, the copier returns to the execution wait mode. (Ready lamp comes on and copy ratio remains unchanged.) (a) Operation/display [PRINT]: Starts scanning. [PAUSE]: Stops execution and displays the sub code input screen. [CA]: Stops execution and terminates the simulation. [ZOOM UP]: Increases the copy ratio in steps of 1% up to 400%. [NORMAL]: Returns copy ratio to 100%. [ZOOM DOWN]: Decreases copy ratio in steps of 1% down to 50%. [ENLARGEMENT]: 115 → 122 → 141 → 200 → 400 → 115 [REDUCTION]: 86 → 81 → 70 → 50 → 86 (The fixed copy ratio preset by a key operation is ignored.)	

Main code	Sub code	Item	Content	Adjustment range
01	02	Displays operating status of optical system sensor.	SIMULATION NO. 1- 2 OPTICAL SENSOR CHECK MHPS , RE , POWER [PAUSE]KEY: END DISPLAY [Content] Displays the operating status of the optical system and mirror motor. MHPS: Mirror home position sensor RE: Mirror rotary encoder pulse POWER: Mirror motor drive power supply (+38 V) (a) Operation/display The display is in: Reverse video when sensor data is ON Normal state when sensor data is OFF [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
02		Checks RADF aging.	SIMULATION NO. 2- _ 1.RADF ACTION (AGING TEST) 2.RADF SENSOR CHECK 3.MOTOR A FORWARD ROTATION 4.MOTOR A REVERSE ROTATION 5.MOTOR B FORWARD ROTATION 6.MOTOR B REVERSE ROTATION 7.BELT CLUTCH ACTIVATION 8.PAPER FEED SOLENOID ACTIVATION 9.INVERSION SOLENOID ACTIVATION INPUT SUB NO. AND PRESS PRINT SWITCH	
	01	RADF aging test.	SIMULATION NO. 2- 1 RADF ACTION (AGING TEST) [PAUSE]KEY: END ACTIVATION [Content] RADF aging is started by manually turning ON the Document presence/absence detection sensor. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	

Main code	Sub code	Item	Content	Adjustment range																																																
02	02	Displays the operating status of the RADF sensor.	SIMULATION NO. 2- 2 RADF SENSOR CHECK DSD , DFD , DTD , RDD , AUOD FGOD , TGOD , DED1 , DWS1 , DWS2 DWS3 , DWS4 , DLS1 , DLS2 , DWS [PAUSE]KEY: END DISPLAY [Content] The operating status of the RADF sensor is displayed. <table><tr><th>Sensor</th><th>Function</th><th>Remark</th></tr><tr><td>DSD</td><td>Document presence/absence detection</td><td></td></tr><tr><td>DFD</td><td>Document preliminary feed detection</td><td></td></tr><tr><td>DTD</td><td>Document resist sensor</td><td></td></tr><tr><td>RDD</td><td>Document exit detection</td><td></td></tr><tr><td>AUOD</td><td>DF section opening/closing detection</td><td></td></tr><tr><td>FGOD</td><td>Paper feed section opening/closing detection</td><td></td></tr><tr><td>TGOD</td><td>Inversion section opening/closing detection</td><td></td></tr><tr><td>DED1</td><td>3rd document detection</td><td></td></tr><tr><td>DWS1</td><td>Document width detection 1</td><td></td></tr><tr><td>DWS2</td><td>Document width detection 2</td><td></td></tr><tr><td>DWS3</td><td>Document width detection 3</td><td></td></tr><tr><td>DWS4</td><td>Document width detection 4</td><td></td></tr><tr><td>DLS1</td><td>Document length detection</td><td></td></tr><tr><td>DLS2</td><td>Document length detection</td><td>only for U.S. measure only</td></tr><tr><td>DWS</td><td>Document pass width detection</td><td></td></tr></table> (a) Operation/display The display is in: Reverse video when sensor data is paper presence/door open Normal state when sensor data is paper absence/door closed [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	Sensor	Function	Remark	DSD	Document presence/absence detection		DFD	Document preliminary feed detection		DTD	Document resist sensor		RDD	Document exit detection		AUOD	DF section opening/closing detection		FGOD	Paper feed section opening/closing detection		TGOD	Inversion section opening/closing detection		DED1	3rd document detection		DWS1	Document width detection 1		DWS2	Document width detection 2		DWS3	Document width detection 3		DWS4	Document width detection 4		DLS1	Document length detection		DLS2	Document length detection	only for U.S. measure only	DWS	Document pass width detection		
Sensor	Function	Remark																																																		
DSD	Document presence/absence detection																																																			
DFD	Document preliminary feed detection																																																			
DTD	Document resist sensor																																																			
RDD	Document exit detection																																																			
AUOD	DF section opening/closing detection																																																			
FGOD	Paper feed section opening/closing detection																																																			
TGOD	Inversion section opening/closing detection																																																			
DED1	3rd document detection																																																			
DWS1	Document width detection 1																																																			
DWS2	Document width detection 2																																																			
DWS3	Document width detection 3																																																			
DWS4	Document width detection 4																																																			
DLS1	Document length detection																																																			
DLS2	Document length detection	only for U.S. measure only																																																		
DWS	Document pass width detection																																																			
	03	Checks forward rotation of paper feed motor.	SIMULATION NO. 2- 3 MOTOR A FORWARD ROTATION [PAUSE]KEY: END ACTIVATION [Content] The paper feed motor of the RADF is rotated in forward. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.																																																	

Main code	Sub code	Item	Content	Adjustment range
02	04	Checks reverse rotation of paper feed motor.	SIMULATION NO. 2- 4 MOTOR A REVERSE ROTATION [PAUSE]KEY: END ACTIVATION [Content] The rotation of the RADF paper feed motor is reversed. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	05	Checks forward rotation of transport motor.	SIMULATION NO. 2- 5 MOTOR B FORWARD ROTATION [PAUSE]KEY: END ACTIVATION [Content] The rotation of the RADF transport motor is rotated in forward. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	06	Checks reverse rotation of transport motor.	SIMULATION NO. 2- 6 MOTOR B REVERSE ROTATION [PAUSE]KEY: END ACTIVATION [Content] The rotation of the RADF transport motor is reversed. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	07	Checks rotation of paper eject and inversion motor.	SIMULATION NO. 2- 7 BELT CLUTCH ACTIVATION [PAUSE]KEY: END ACTIVATION [Content] The RADF belt clutch is turned ON. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	

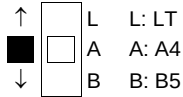
Main code	Sub code	Item	Content	Adjustment range
02	08	Checks paper feed solenoid activation.	SIMULATION NO. 2- 8 PAPER FEED SOLENOID ACTIVATION [PAUSE]KEY: END ACTIVATION [Content] The RADF paper feed solenoid is turned ON. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	09	Check inversion solenoid activation.	SIMULATION NO. 2- 9 INVERSION SOLENOID ACTIVATION [PAUSE]KEY: END ACTIVATION [Content] The RADF in version solenoid is turned ON. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
03		Checks sorter activation.	- SF-S15 SIMULATION NO. 3- _ 2.SORTER SENSOR CHECK 3.TRANSPORT MOTOR ROTATION 4.SORTER BIN MOVING 5.FAN MOTOR ROTATION 6.GATE SOLENOID ACTIVATION INPUT SUB NO. AND PRESS PRINT SWITCH - SF-S53 SIMULATION NO. 3- _ 2.SORTER SENSOR CHECK 3.TRANSPORT MOTOR ROTATION 4.SORTER BIN MOVING 6.GATE SOLENOID ACTIVATION 8.STAPLER MOTOR ROTATION 9.PAPER HOLD SOLENOID ACTIVATION 10.GUIDE BAR MOTOR ROTATION INPUT SUB NO. AND PRESS PRINT SWITCH	

Main code	Sub code	Item	Content	Adjustment range
03	02	Displays the operating status of sorter sensor.	• SF-S14 SIMULATION NO. 3- 2 SORTER SENSOR CHECK PES , PWB-S , IULS , ILLS , IHS IPS , SJS , UCSW , FCSW [PAUSE]KEY: END DISPLAY • SF-S53 SIMULATION NO. 3- 2 SORTER SENSOR CHECK SPID , SPPD , BPED , SPED , SSD BHPS , LCHPS , SGHPS , SHPS , JSW SCSW , SCS , SED [PAUSE]KEY: END DISPLAY [Content] Displays the operating status of the sorter sensor. • SF-S15 PES: Paper entry detection PWB-S: Paper exit detection IULS: Indexer upper limit detection ILLs: Indexer lower limit detection IHS: Indexer home position detection IPS: Indexer fixed position detection SJS: Sorter set detection UCSW: Top cover opening/closing detection FCSW: Floor cover opening/closing detection • SF-S53 SPID: Paper entry detection (non sort) SPPD: Paper entry detection (sort) BPED: Bin paper detection SPED: Staple position paper detection SSD: Staple unit position detection BHPS: Bin home position detection LCHPS: Bin fixed-position detection SGHPS: Guide bar home position detection SHPS: Staple activation home position detection JSW: Sorter set detection SCSW: Staple cover opening/closing detection SCS: Staple unit home position detection SED: Staple needle detection (a) Operation/display The display is in: Reverse video when sensor data is paper presence/ door open/ON. Normal state when sensor data is paper absence/door closed/OFF. [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	

Main code	Sub code	Item	Content	Adjustment range
03	03	Checks the activation of the transport motor.	SIMULATION NO. 3- 3 TRANSPORT MOTOR ROTATION [PAUSE]KEY: END ACTIVATION [Content] The transport motor of the sorter is turned ON. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	04	Checks the activation of the bin shift motor. <SF-S15 only>	SIMULATION NO. 3- 4 SORTER BIN MOVING [PAUSE]KEY: END ACTIVATION [Content] The activation of the sorter bin shift motor is checked. The bin returns to the home position and stops at specified positions between 1st and 20th (21st) bins, moving vertically. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	05	Checks the activation of the fan motor.	SIMULATION NO. 3- 5 FAN MOTOR ROTATION [PAUSE]KEY: END ACTIVATION [Content] The fan motor of the fan is turned ON. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	06	Checks the activation of the gate solenoid.	SIMULATION NO. 3- 6 GATE SOLENOID ACTIVATION [PAUSE]KEY: END ACTIVATION [Content] The sorter gate solenoid is turned ON. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	

Main code	Sub code	Item	Content	Adjustment range
03	08	Checks the activation of the staple motor. <SF-S53N only>	SIMULATION NO. 3- 8 STAPLER MOTOR ROTATION [PAUSE]KEY: END ACTIVATION [Content] The activation of the sorter staple motor is checked. When there is a paper at the staple section, stapling action is performed once. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	09	Checks the activation of the paper holder solenoid. <SF-S53N only>	SIMULATION NO. 3- 9 PAPER HOLD SOLENOID ACTIVATION [PAUSE]KEY: END ACTIVATION [Content] The activation of the paper holder solenoid is checked. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	10	Checks the activation of the guide bar motor. <SF-S53N only>	SIMULATION NO. 3-10 GUIDE BAR MOTOR ROTATION [PAUSE]KEY: END ACTIVATION [Content] The activation of the guide bar motor is checked. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	

Main code	Sub code	Item	Content	Adjustment range
04		Checks the activation of the desk.	SIMULATION NO. 4- _ 2.DESK SENSOR CHECK 3, 4. TRAY SIZE SWITCH CHECK 6. TRANSPORT MOTOR ROTATION 7, 8. LIFT UP MOTOR ROTATION 10. TRANSPORT CLUTCH ACTIVATION 11, 13. PAPER FEED SOLENOID ACTIVATION 12, 14. PAPER FEED CLUTCH ACTIVATION INPUT SUB NO. AND PRESS PRINT SWITCH	
	02	Displays the operating status of the desk sensor.	SIMULATION NO. 4- 2 DESK SENSOR CHECK DPOD1 , DPOD2 , DDOP DLUD1 , DLUD2 DPE1 , DPE2 [PAUSE]KEY: END DISPLAY [Content] The operating status of the desk sensor is displayed. DPOD1: Detection of paper exit of upper tray paper DPOD2: Detection of paper exit of lower tray (LCC) paper DDOP: Detection of side cover opening/closing DLUD1: Detection of upper tray cassette lift up DLUD2: Detection of lower tray (LCC) cassette lift up DPE1: Detection of upper tray cassette paper DPE2: Detection of lower tray (LCC) cassette paper (a) Operation/display The display is in: Reverse video when sensor data is paper presence/ door open/ON. Normal state when sensor data is paper absence/door closed/OFF. [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	

Main code	Sub code	Item	Content	Adjustment range
04	03	Checks upper tray cassette size switch.	SIMULATION NO. 4- 3 TRAY SIZE SWITCH CHECK (UPPER TRAY) CSSW1 , CSSW2 , CSSW3 , CSSW4 [PAUSE]KEY: END DISPLAY [Content] Displays the operating status of the upper tray cassette size switch. Switches viewed from front frame side CSSW4 CSSW3 CSSW2 CSSW1  (a) Operation/display The display is in: Reverse video when the cassette size switch is ON. Normal state when the cassette size switch is OFF. [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	04	Checks the cassette size switch.	SIMULATION NO. 4- 4 TRAY SIZE SWITCH CHECK (LCC TRAY) LT , A4 , B5 [PAUSE]KEY: END DISPLAY [Content] The cassette size switch of the desk LCC is displayed. Switches viewed from front frame side  (a) Operation/display The display is in: Reverse video when the cassette size switch is ON. Normal state when the cassette size switch is OFF. [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	06	Checks the activation of the transport motor.	SIMULATION NO. 4- 6 TRANSPORT MOTOR ROTATION [PAUSE]KEY: END ACTIVATION [Content] The desk transport motor is turned ON. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	

Main code	Sub code	Item	Content	Adjustment range
04	07	Checks the activation of the upper tray lift-up motor.	SIMULATION NO. 4- 7 LIFT UP MOTOR ROTATION (UPPER TRAY) [PAUSE]KEY: END ACTIVATION [Content] The lift-up operation of the desk upper tray is checked. (The sensor is turned OFF when the upper limit is detected.) (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	08	Checks the lift-up operation of the LCC cassette.	SIMULATION NO. 4- 8 LIFT UP MOTOR ROTATION (LCC TRAY) [PAUSE]KEY: END ACTIVATION [Content] The lift-up operation of the LCC tray is checked. (The sensor is turned OFF when the upper limit is detected.) (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	10	Checks the activation of the transport clutch.	SIMULATION NO. 4-10 TRANSPORT CLUTCH ACTIVATION [PAUSE]KEY: END ACTIVATION [Content] The desk transport clutch is turned ON. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	11	Checks the activation of the upper tray paper feed solenoid.	SIMULATION NO. 4-11 PAPER FEED SOLENOID ACTIVATION (UPPER TRAY) [PAUSE]KEY: END ACTIVATION [Content] The desk's upper tray paper feed solenoid is turned ON. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	

Main code	Sub code	Item	Content	Adjustment range
04	12	Checks the activation of the upper tray paper feed clutch.	SIMULATION NO. 4-12 PAPER FEED CLUTCH ACTIVATION (UPPER TRAY) [PAUSE]KEY: END ACTIVATION [Content] The desk's upper tray paper feed clutch is turned ON. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	13	Checks the activation of the LCC paper feed solenoid.	SIMULATION NO. 4-13 PAPER FEED SOLENOID ACTIVATION (LCC TRAY) [PAUSE]KEY: END ACTIVATION [Content] The desk's LCC paper feed solenoid is turned ON. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	14	Checks the activation of the LCC paper feed clutch.	SIMULATION NO. 4-14 PAPER FEED CLUTCH ACTIVATION (LCC TRAY) [PAUSE]KEY: END ACTIVATION [Content] The desk's LCC paper feed clutch is turned ON. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
05		Checks the lighting of lamps.	SIMULATION NO. 5- _ 1.DISPLAY LED CHECK 2.HEATER LAMP CHECK 3.COPY LAMP CHECK 4.DISCHARGE LAMP CHECK 6.COPY LAMP POWER SETTING INPUT SUB NO. AND PRESS PRINT SWITCH	

Main code	Sub code	Item	Content	Adjustment range
05	01	Checks the lighting of LED lamps on operation panel.	SIMULATION NO. 5- 1 * SHOW THE DENSITY OF DISPLAY WITH TREE STAGES. [PAUSE]KEY: END LAMP CHECK [Content] All the LED lamps on the operation panel are turned ON and held for 5 seconds. The RADF lamp (document (document feed/document remaining) comes on, too. After lighting, the screen returns to the sub code input screen. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	02	Checks lighting of heater lamp.	SIMULATION NO. 5- 2 HEATER LAMP CHECK [PAUSE]KEY: END LAMP CHECK [Content] The heater lamp comes on and goes out 5 time for every 500 ms. After the operations, the screen returns to the sub code input screen. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	03	Checks lighting of copy lamp.	- Execution wait mode SIMULATION NO. 5- 3 COPY LAMP CHECK COPY LAMP POWER SETTING [XX] :_ (0~55) INPUT SETUP VALUE AND PRESS PRINT SW - During execution SIMULATION NO. 5- 3 COPY LAMP CHECK COPY LAMP POWER SETTING [XX] [PAUSE]KEY: END OUTPUT CHECK	

Main code	Sub code	Item	Content	Adjustment range												
05	03	Checks lighting of copy lamp.	[Content] When the [PRINT] key is pressed after entering a sub code, the copier enters the execution wait mode, with the ready lamp coming on and the current copy lamp voltage setting displayed. The current copy lamp voltage setting can be changed with the numeric keypad. After that, if the [PRINT] key is pressed, the setting is stored in memory and the ready lamp goes out. The copy lamp comes on at the current voltage setting and stays for 6.25 sec. After the operations, the screen returns to the sub code input screen. (Ready lamp comes on.) <table><tr><td>Setting</td><td>CLPWM duty</td><td>CL voltage</td></tr><tr><td>0:</td><td>0%</td><td>0 V</td></tr><tr><td>11:</td><td>20%</td><td>approx. 30 V</td></tr><tr><td>55:</td><td>100%</td><td>approx. 50 V</td></tr></table> * The voltage should not be set for the range of 1 to 10, because the CL voltage output may be unstable. (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated and the copy lamp comes on. If the entered value is invalid, it is cleared and the error buzzer sounds. However, the [PRINT] key is pressed without entering any value, the current setting is not updated and the copy lamp comes on. [0-9]: Enters lamp voltage settings. [C]: Clears the entered values. [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	Setting	CLPWM duty	CL voltage	0:	0%	0 V	11:	20%	approx. 30 V	55:	100%	approx. 50 V	0-55
Setting	CLPWM duty	CL voltage														
0:	0%	0 V														
11:	20%	approx. 30 V														
55:	100%	approx. 50 V														
	04	Checks lighting of discharge lamp.	SIMULATION NO. 5- 4 DISCHARGE LAMP CHECK [PAUSE]KEY: END LAMP CHECK [Content] The discharge lamp comes on and stays lit for 30 sec. After the operation, the screen returns to the sub code input screen. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.													
	06	Sets copy lamp lighting voltage.	SIMULATION NO. 5- 6 COPY LAMP POWER SETTING [XX] :_ (0~55) INPUT SETUP VALUE AND PRESS PRINT SW [Content] the copy lamp lighting voltage can be set. The current setting is displayed and the operator can set a new value. <table><tr><td>Setting</td><td>CLPWM duty</td><td>CL voltage</td></tr><tr><td>0:</td><td>0%</td><td>0 V</td></tr><tr><td>11:</td><td>20%</td><td>approx. 30 V</td></tr><tr><td>55:</td><td>100%</td><td>approx. 50 V</td></tr></table> * The voltage should not be set for the range of 1 to 10, because the CL voltage output may be unstable.	Setting	CLPWM duty	CL voltage	0:	0%	0 V	11:	20%	approx. 30 V	55:	100%	approx. 50 V	0-55
Setting	CLPWM duty	CL voltage														
0:	0%	0 V														
11:	20%	approx. 30 V														
55:	100%	approx. 50 V														

Main code	Sub code	Item	Content	Adjustment range
05	06	Sets copy lamp lighting voltage.	(a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated and the screen returns to the sub code input screen. If the entered value is invalid, the data in the input field is cleared and the error buzzer sounds. However, the [PRINT] key is pressed without entering any value, the current setting is not updated and the screen returns to the sub code input screen. [0-9]: Enters lamp voltage settings. [C]: Clears the data in the input field. [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
06		Checks the activation of copier components.	SIMULATION NO. 6- _ MACHINE EACH LOAD ACTIVATION 1.COPIER MAIN SWITCH RESET 2.SEPARATION SOLENOID ACTIVATION INPUT SUB NO. AND PRESS PRINT SWITCH	
	01	Copier main switch reset.	SIMULATION NO. 6-1 COPIER MAIN SWITCH RESET PRINT SWITCH:EXECUTE SIMULATION [Content] The copier main switch is reset. After execution of the simulation, the copier power is turned off. (a) Operation/display [START]: The simulation is executed. [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution is stopped and the simulation is terminated.	
	02	Checks drum separation solenoid for activation.	SIMULATION NO. 6- 2 SEPARATION SOLENOID ACTIVATION [PAUSE]KEY: END ACTIVATION [Content] The drum separation solenoid is turned ON/OFF by 30 times for every 500 ms. After the operations, the screen returns to the sub code input screen. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	

Main code	Sub code	Item	Content	Adjustment range
07		Copy aging test.	SIMULATION NO. 7- _ AGING TEST 1. WITH ALERT FOR MISFEED 2. WITHOUT ALERT FOR PAPER MISFEED 3. WITHOUT MISFEED AND FUSING 4. WARMUP DISABLED 6. INTERMITTENT AGING 7. INTERMITTENT AGING WITHOUT ALERT FOR PAPER MISFEED 8. WARMUP TIME DISPLAY INPUT SUB NO. AND PRESS PRINT SWITCH	
	01	Displays warm-up time and aging test with alert for paper misfeed.	[Content] 1. The warm-up time can be checked. 2. Aging test (with alert for paper misfeed) can be performed repeatedly by the preset number of copies. If the [PRINT] key is pressed after entering a sub code, the copier exits the simulation mode to start warming up. At this time, the warm-up time is displayed on the multiple display unit. The display counts up by seconds after the start of warming up and stops counting up when warming up is terminated. If the [CA] key is pressed, the multiple display unit is reset to zero. If the [PRINT] key is pressed after entering the number of copies you want to make, that set number of copies is made. If the [PRINT] key is pressed without pressing [CA], single copies are made repeatedly. To clear the aging test mode: 1. Turn OFF/ON the main switch (on the left-hand side of the copier) 2. Enter the simulation mode and press the [CA] to exit the simulation mode.	
	02	Displays warm-up time and aging test without alert for paper misfeed.	[Content] 1. The warm-up time can be checked. 2. Aging test (without alert for paper misfeed) can be performed repeatedly by the preset number of copies. If the [PRINT] key is pressed after entering a sub code, the copier exits the simulation mode to start warming up. At this time, the warm-up time is displayed on the multiple display unit. The display counts up by seconds after the start of warming up and stops counting up when warming up is terminated. If the [CA] key is pressed, the multiple display unit is reset to zero. If the [PRINT] key is pressed after entering the number of copies you want to make, that set number of copies is made. If the [PRINT] key is pressed without pressing [CA], single copies are made repeatedly. To clear the aging test mode: 1. Turn OFF/ON the main switch (on the left-hand side of the copier) 2. Enter the simulation mode and press the [CA] to exit the simulation mode.	
	03	Copy aging test without alert for paper misfeed/fusing temperature control.	[Content] 1. The warm-up is disabled. The optical system is initialized and shaded. 2. Fusing temperature control is not performed. (The heater lamp does not come on.) 3. Aging test (without alert for paper misfeed) can be performed repeatedly by the preset number of copies. If the [PRINT] key is pressed after entering a sub code, the copier exits the simulation mode and initializes and shades the optical system. After the operations, the copier becomes the copy ready state. If the [PRINT] key is pressed after entering the number of copies you want to make, that set number of copies is made repeatedly, without alert for misfeed. (Before copying the first sheet of paper, the process controller is activated.) To clear the aging test mode: 1. Turn OFF/ON the main switch (on the left-hand side of the copier) 2. Enter the simulation mode and press the [CA] to exit the simulation mode.	

Main code	Sub code	Item	Content	Adjustment range
07	04	Warm-up disabled.	[Content] 1. The warm-up is disabled. The optical system is initialized and shaded. The warm-up is disabled, but the fusing temperature control is performed. 2. The same applies to Door open clear/JAM clear/Economy mode return. If the [PRINT] key is pressed after entering a sub code, the copier exits the simulation mode and initializes and shades the optical system. After the operations, the copier becomes the copy ready state, which allows the copier to make copies in the ordinary manner. (Before copying the first sheet of paper, the process controller is activated.) Although the warm-up is disabled, the fusing temperature control is performed. Therefore, if the temperature of the fusing section is too low, the copier may sense low-temperature trouble, indicating "H4" on the display. To clear this mode: 1. Turn OFF/ON the main switch (on the left-hand side of the copier) 2. Enter the simulation mode and press the [CA] to exit the simulation mode.	
	06	Intermittent aging.	[Content] 1. Intermittent aging test (with alert for paper misfeed) can be performed repeatedly by the preset number of copies. If the [PRINT] key is pressed after entering a sub code, the copier exits the simulation mode and warms up the copier. After warming up, the copier becomes the copy ready state. If the [PRINT] key is pressed after entering the number of copies you want to make, the preset number of copies are made. After copying, the copier becomes the ready state. Three second later, the copier automatically starts copying again. To clear the aging mode: 1. Turn OFF/ON the main switch (on the left-hand side of the copier) 2. Enter the simulation mode and press the [CA] to exit the simulation mode.	
	07	Intermittent aging without alert for paper misfeed.	[Content] 1. Intermittent aging test (without alert for paper misfeed) can be performed repeatedly by the preset number of copies. If the [PRINT] key is pressed after entering a sub code, the copier exits the simulation mode and warms up the copier. After warming up, the copier becomes the copy ready state. If the [PRINT] key is pressed after entering the number of copies you want to make, the preset number of copies are made. After copying, the copier becomes the ready state. Three second later, the copier automatically starts copying again, without alert for paper misfeed. To clear the aging mode: 1. Turn OFF/ON the main switch (on the left-hand side of the copier) 2. Enter the simulation mode and press the [CA] to exit the simulation mode.	
	08	Displays warm-up time (without aging).	[Content] 1. The warm-up time can be checked. If the [PRINT] key is pressed after entering a sub code, the copier exits the simulation mode and warms up the copier. At this time, the warm-up time is displayed on the multiple display unit. The display counts up by seconds after the start of warming up and stops counting up when warming up is terminated. When the [CA] key is pressed, the multiple display unit is reset to zero. To clear this mode: 1. Turn OFF/ON the main switch (on the left-hand side of the copier) 2. Enter the simulation mode and press the [CA] to exit the simulation mode.	

Main code	Sub code	Item	Content	Adjustment range
08		Checks developing bias voltage output.	SIMULATION NO. 8- _ 1.DEVELOPING BIAS VOLTAGE SETTING AND OUTPUT 2.MAIN CORONA SETTING AND OUTPUT 6.TRANSFER CORONA OUTPUT 7.SEPARATION CORONA OUTPUT INPUT SUB NO. AND PRESS PRINT SWITCH	
	01	Sets and checks developing bias voltage.	• Execution wait mode SIMULATION NO. 8- 1 DEV. BIAS VOLTAGE SETTING AND OUTPUT AUTO EXPOSURE MODE [XXX] :XXX [V] MANUAL EXPOSURE MODE [XXX] :XXX [V] PHOTOGRAPHIC MODE [XXX] :XXX [V] SOFT PHOTOGRAPHIC MODE [XXX] :XXX [V] TONER SAVE MODE [XXX] :XXX [V] PRINTER MODE [XXX] :XXX [V] (0~700) [→]KEY: MOVE PRINT SW: EXECUTE • Developing bias voltage output in progress SIMULATION NO. 8- 1 DEV. BIAS VOLTAGE OUTPUT AUTO EXPOSURE MODE DEV. BIAS VOLTAGE [XXX] [PAUSE]KEY: END OUTPUT CHECK SIMULATION NO. 8- 1 DEV. BIAS VOLTAGE OUTPUT MANUAL EXPOSURE MODE SIMULATION NO. 8- 1 DEV. BIAS VOLTAGE OUTPUT PHOTOGRAPHIC MODE	0-700 0-700 0-700

Main code	Sub code	Item	Content	Adjustment range
08	01	Sets and checks developing bias voltage.	SIMULATION NO. 8- 1 DEV. BIAS VOLTAGE OUTPUT SOFT PHOTOGRAPHIC MODE SIMULATION NO. 8- 1 DEV. BIAS VOLTAGE OUTPUT TONER SAVE MODE SIMULATION NO. 8- 1 DEV. BIAS VOLTAGE OUTPUT PRINTER MODE MODE [Content] If the [PRINT] key is pressed after entering a sub code, the copier enter the execution wait mode and the ready lamp comes on, with the current developing bias voltage setting displayed. At this time, the setting can be changed with the numeric keypad and updated by pressing the [PRINT] key. (The cursor indicates the same developing bias item.) If the [PRINT] key is pressed without entering any new setting, the ready lamp goes out and the developing bias voltage is output at the current setting for 30 seconds. After outputting, the screen returns to the execution wait mode screen. Setting Developing bias (Approx.) 0: 0 V 700: -700 V <Note> The set value does not coincide with the output voltage. (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated. (The input field remains at the same place.) If the entered value is not valid, the entered value is cleared and the error buzzer sounds. If the [PRINT] key is pressed without entering any new setting, the developing bias voltage is output without updating the setting. (The developing bias voltage in the input field selected at that time is output.) [0-9]: Enters developing bias voltage settings [→]: Moves the input field. [C]: Clears the entered value. [PAUSE]: Stops the execution of the simulation and returns the screen to the execution wait mode. [CA]: Stops the execution of the simulation and terminates the simulation.	0-700 0-700 0-700
	02	Sets and checks charging/grid output.	Execution wait mode SIMULATION NO. 8- 2 MAIN CORONA SETTING AND OUTPUT AUTO EXPOSURE MODE [XXX] :XXX [V] MANUAL EXPOSURE MODE [XXX] :XXX [V] PHOTOGRAPHIC MODE [XXX] :XXX [V] SOFT PHOTOGRAPHIC MODE [XXX] :XXX [V] TONER SAVE MODE [XXX] :XXX [V] PRINTER MODE [XXX] :XXX [V] (200~900) [→]KEY: MOVE PRINT SW: EXECUTE	

[illegible]

Main code	Sub code	Item	Content	Adjustment range
08	02	Sets and checks charging/grid output.	(a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated. (The input field remains at the same place.) If the entered value is not valid, the entered value is cleared and the error buzzer sounds. If the [PRINT] key is pressed without entering any new setting, both the charging charger voltage and the grid bias voltage are output without updating the settings. (The charging charger voltage and the grid bias voltage in the input field selected at that time are output.) [0-9]: Enters grid bias voltage settings [→]: Moves the input field. [C]: Clears the entered value. [PAUSE]: Stops the execution of the simulation and returns the screen to the sub code input screen. [CA]: Stops the execution of the simulation and terminates the simulation.	
	06	Checks transfer charger output.	SIMULATION NO. 8- 6 TRANSFER CORONA OUTPUT [PAUSE]KEY: END OUTPUT CHECK [Content] The transfer charger (THV) is output for 30 seconds. After outputting, the screen returns to the sub code input screen. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	07	Checks separation charger output.	SIMULATION NO. 8- 7 SEPARATION CORONA OUTPUT [PAUSE]KEY: END OUTPUT CHECK [Content] The separation charger is output for 30 seconds. After outputting, the screen returns to the sub code input screen. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
09		Checks ADU activations.	SIMULATION NO. 9- _ 2.ADU SENSOR CHECK 3.ADU REAR PLATE DRIVE MOTOR ROTATION 4.ADU ALIGNMENT PLATE DRIVE MOTOR 5.GATE SOLENOID ACTIVATION INPUT SUB NO. AND PRESS PRINT SWITCH	

Main code	Sub code	Item	Content	Adjustment range
09	02	Displays the operating status of the ADU sensor.	SIMULATION NO. 9- 2 ADU SENSOR CHECK DPPD1 , DPPD2 , DTPID , DPFD DTWHPS , DTBHPS [PAUSE]KEY: END DISPLAY [Content] The operating status of the ADU sensor is displayed. DPPD1: ADU paper transport detector – 1 DPPD2: ADU paper transport detector – 2 DTPID: ADU intermediate tray paper detector DPFD: ADU paper exit detector DTWHPS: ADU alignment plate home position sensor DTBHPS: ADU trailing edge plate home position sensor (a) Operation/display Reverse video when sensor data is paper presence/ ON Normal state when sensor data is paper absence/OFF [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	03	ADU rear edge plate aging.	SIMULATION NO. 9- 3 ADU REAR PLATE DRIVE MOTOR ROTATION [PAUSE]KEY: END ACTIVATION [Content]: The ADU rear edge plate operation is checked. The plate is moved to each size positions sequentially as shown below. [AB series]: HP — A3 — B4 — A4R — B5R — A4 — B5 — A5 [Inch series]: HP — 11" × 17" — 11" × 14" — 8½" × 11" (R) — 8½" × 11" (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution is stopped and the simulation is terminated.	
	04	ADU alignment plate aging.	SIMULATION NO. 9- 4 ADU ALIGNMENT PLATE DRIVE MOTOR ROTATION [PAUSE]KEY: END ACTIVATION [Content] The ADU alignment plate operation is checked. The plate is moved to each size positions sequentially as shown below. [AB series]: HP — A3 — B4 — A4R — B5R — A4 — B5 — A5 [Inch series]: HP — 11" × 17" — 11" × 14" — 8½" × 11" (R) — 8½" × 11" (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution is stopped and the simulation is terminated.	

Main code	Sub code	Item	Content	Adjustment range
09	05	Checks the activation of the gate solenoid.	SIMULATION NO. 9- 5 GATE SOLENOID ACTIVATION [PAUSE]KEY: END ACTIVATION [Content] The gate solenoid of the fusing paper exit section is turned ON/OFF. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
10		Toner motor aging.	SIMULATION NO. 10 TONER MOTOR ACTIVATION [PAUSE]KEY: END ACTIVATION [Content] The toner motor of the developing unit is rotated. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the main code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
14		Clears troubles (excluding U2/PF trouble).	SIMULATION NO. 14 TROUBLE CANCELLATION (EXCEPT U2/PF) PRINT SWITCH: EXECUTE SIMULATION [Content] All troubles other than the U2/PF are cleared. After the execution, the simulation is automatically cleared. (a) Operation/display [PRINT]: The simulation is executed and terminated. [PAUSE]: The execution of the simulation is stopped and the screen returns to the main code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
16		Clears U2 trouble.	SIMULATION NO. 16 U2 TROUBLE CANCELLATION PRINT SWITCH: EXECUTE SIMULATION [Content] The US trouble is cleared. After the execution, the simulation is automatically cleared. (a) Operation/display [PRINT]: The simulation is executed and terminated. [PAUSE]: The execution of the simulation is stopped and the screen returns to the main code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	

Main code	Sub code	Item	Content	Adjustment range
17		Clears PF trouble.	SIMULATION NO.17 PF TROUBLE CANCELLATION PRINT SWITCH: EXECUTE SIMULATION [Content] The PF trouble is cleared. After the execution, the simulation is cleared. (a) Operation/display [PRINT]: The simulation is executed and the screen displays the main code input mode. [PAUSE]: The execution of the simulation is stopped and the screen returns to the main code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
20		Clears maintenance counter.	SIMULATION NO.20 MAINTENANCE COUNTER WOULD YOU MIND IF CLEARING EXECUTE? 1. EXECUTE 2. CANCEL SELECT WITH TEN KEY • [1] key SIMULATION NO.20 MAINTENANCE COUNTER COMPLETED CLEARING MAINTENANCE COUNTER DISPLAY MAINTENANCE: 000,000 [PAUSE]KEY: END DISPLAY [Content] The maintenance counter is cleared and then the maintenance counter is displayed. (a) Operation/display [1]: The simulation is executed and the screen changes to the maintenance counter mode. [2]: The execution of the simulation is stopped and the screen returns to the main code input screen. If any key other than [1] or [2] is pressed, the error buzzer sounds. [PAUSE]: The execution of the simulation is stopped and the screen returns to the main code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	

[illegible]

Main code	Sub code	Item	Content	Adjustment range
22	01	Displays maintenance counter.	SIMULATION NO.22- 1 MAINTENANCE COUNTER DISPLAY MAINTENANCE: XXX,XXX [PAUSE]KEY: END DISPLAY [Content] The current maintenance counter value is displayed. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	02	Displays maintenance preset counter.	SIMULATION NO.22- 2 MAINTENANCE PRESET COUNTER DISPLAY MAINTENANCE PRESET: XXX,XXX [PAUSE]KEY: END DISPLAY [Content] The maintenance preset counter value is displayed. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	04	Displays total JAM counter.	- JAM counter screen SIMULATION NO.22- 4 TOTAL MISFEED COUNTER DISPLAY TOTAL JAM : XXX,XXX [?]KEY: JAM MAP DISPLAY [PAUSE]KEY: END DISPLAY - JAM map screen SIMULATION NO.22- 4 PAPER MISFEED MAP DISPLAY XXXXXX, XXXXXX, XXXXXX, XXXXXX, XXXXXX XXXXXX, XXXXXX, XXXXXX, XXXXXX, XXXXXX (1 / 5) →(1/5)~(5/5) [→]KEY: NEXT PAGE DISPLAY [?]KEY: RETURN TO JAM COUNT DISPLAY [PAUSE]KEY: END DISPLAY [Content] The current total JAM counter value is displayed. If the [?] key is pressed, the causes of the 50 paper misfeed errors which have occurred recently are displayed, with the cause of the paper misfeed error which has occurred most recently appearing first. If the number of the paper misfeed errors which have occurred is less than 50, "----" is displayed in each cause area.	

Main code	Sub code	Item	Content	Adjustment range																																																												
22	04	Displays total JAM counter.	<table><tr><th>JAM map display</th><th>Cause</th></tr><tr><td>PFD</td><td>PFD paper misfeed (Paper stagnates at PDF or does not reach PPD1.)</td></tr><tr><td>PPD1</td><td>PPD1 paper misfeed (Paper stagnates at PPD1 or does not reach PPD2.)</td></tr><tr><td>PPD2</td><td>PPD2 paper misfeed (Paper stagnates at PPD2 or does not reach PSD.)</td></tr><tr><td>PSD</td><td>PSD paper misfeed (Paper stagnates at PSD or does not reach POD/DPPD1.)</td></tr><tr><td>POD</td><td>POD paper misfeed (Paper stagnates at POD.)</td></tr><tr><td>DFFD</td><td>DFFD paper misfeed (Paper stagnates at DFFD or does not reach PPD1.)</td></tr><tr><td>DPPD1</td><td>DPPD1 paper misfeed (Paper stagnates at DPPD1 or does not reach DPPD2.)</td></tr><tr><td>DPPD2</td><td>DPPD2 paper misfeed (Paper stagnates at DPPD2 or does not reach DTPD.)</td></tr><tr><td>MPF</td><td>Multiple paper feed section paper misfeed (MPFS is ON and paper does not reach PPD2.)</td></tr><tr><td>LCS</td><td>Bottom CS paper misfeed (CPFC2 is ON and paper does not reach PFD.)</td></tr><tr><td>UCS</td><td>Top CS paper misfeed (CPFC1 is ON and paper does not reach PPD1.)</td></tr><tr><td>ADU</td><td>ADU paper misfeed (DPFC is ON and paper does not reach DFFD.)</td></tr><tr><td>D1CS</td><td>Desk upper tray paper misfeed (DPFC1 is ON and paper does not reach DPOD1.)</td></tr><tr><td>D2CS</td><td>Desk LCC tray paper misfeed (DPFC2 is ON and paper does not reach DPOD2.)</td></tr><tr><td>DPOD1</td><td>Paper stagnates at DPOD1.</td></tr><tr><td>DPOD12</td><td>Paper does not reach DPOD2 with DPOD1 turned ON.</td></tr><tr><td>DPOD2</td><td>Paper stagnates at DPOD2.</td></tr><tr><td>DPOD23</td><td>Paper does not reach DPOD3 with DPOD2 turned ON.</td></tr><tr><td>DPOD3</td><td>Paper stagnates at DPOD3.</td></tr><tr><td>ST_I1</td><td>Paper does not reach sorter inlet sensor (SF-S15) Paper does not reach non-sort sensor transport section (SF-S53)</td></tr><tr><td>ST_I2</td><td>Paper stagnates at sorter inlet sensor (SF-S15) Paper does not reach non-sort sensor transport section (SF-S53)</td></tr><tr><td>ST_01</td><td>Paper does not reach sorter paper exit sensor (SF-S15) Paper does not reach sort sensor transport section (SF-S53)</td></tr><tr><td>ST_02</td><td>Paper does not stagnates sorter paper exit sensor (SF-S15) Paper stagnates at sort sensor transport section (SF-S53)</td></tr><tr><td>ST_ID</td><td>Non-sort sensor door open paper misfeed (SF-S53)</td></tr><tr><td>ST_OD</td><td>Sort sensor third door open paper misfeed (SF-S53)</td></tr><tr><td>DF_PFD</td><td>RADF spare paper misfeed</td></tr><tr><td>DF_SET</td><td>RADF paper misfeed</td></tr><tr><td>DF_EXT</td><td>RADF paper exit error</td></tr><tr><td>DF_REV</td><td>RADF inversion error</td></tr></table>	JAM map display	Cause	PFD	PFD paper misfeed (Paper stagnates at PDF or does not reach PPD1.)	PPD1	PPD1 paper misfeed (Paper stagnates at PPD1 or does not reach PPD2.)	PPD2	PPD2 paper misfeed (Paper stagnates at PPD2 or does not reach PSD.)	PSD	PSD paper misfeed (Paper stagnates at PSD or does not reach POD/DPPD1.)	POD	POD paper misfeed (Paper stagnates at POD.)	DFFD	DFFD paper misfeed (Paper stagnates at DFFD or does not reach PPD1.)	DPPD1	DPPD1 paper misfeed (Paper stagnates at DPPD1 or does not reach DPPD2.)	DPPD2	DPPD2 paper misfeed (Paper stagnates at DPPD2 or does not reach DTPD.)	MPF	Multiple paper feed section paper misfeed (MPFS is ON and paper does not reach PPD2.)	LCS	Bottom CS paper misfeed (CPFC2 is ON and paper does not reach PFD.)	UCS	Top CS paper misfeed (CPFC1 is ON and paper does not reach PPD1.)	ADU	ADU paper misfeed (DPFC is ON and paper does not reach DFFD.)	D1CS	Desk upper tray paper misfeed (DPFC1 is ON and paper does not reach DPOD1.)	D2CS	Desk LCC tray paper misfeed (DPFC2 is ON and paper does not reach DPOD2.)	DPOD1	Paper stagnates at DPOD1.	DPOD12	Paper does not reach DPOD2 with DPOD1 turned ON.	DPOD2	Paper stagnates at DPOD2.	DPOD23	Paper does not reach DPOD3 with DPOD2 turned ON.	DPOD3	Paper stagnates at DPOD3.	ST_I1	Paper does not reach sorter inlet sensor (SF-S15) Paper does not reach non-sort sensor transport section (SF-S53)	ST_I2	Paper stagnates at sorter inlet sensor (SF-S15) Paper does not reach non-sort sensor transport section (SF-S53)	ST_01	Paper does not reach sorter paper exit sensor (SF-S15) Paper does not reach sort sensor transport section (SF-S53)	ST_02	Paper does not stagnates sorter paper exit sensor (SF-S15) Paper stagnates at sort sensor transport section (SF-S53)	ST_ID	Non-sort sensor door open paper misfeed (SF-S53)	ST_OD	Sort sensor third door open paper misfeed (SF-S53)	DF_PFD	RADF spare paper misfeed	DF_SET	RADF paper misfeed	DF_EXT	RADF paper exit error	DF_REV	RADF inversion error	
JAM map display	Cause																																																															
PFD	PFD paper misfeed (Paper stagnates at PDF or does not reach PPD1.)																																																															
PPD1	PPD1 paper misfeed (Paper stagnates at PPD1 or does not reach PPD2.)																																																															
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DPOD23	Paper does not reach DPOD3 with DPOD2 turned ON.																																																															
DPOD3	Paper stagnates at DPOD3.																																																															
ST_I1	Paper does not reach sorter inlet sensor (SF-S15) Paper does not reach non-sort sensor transport section (SF-S53)																																																															
ST_I2	Paper stagnates at sorter inlet sensor (SF-S15) Paper does not reach non-sort sensor transport section (SF-S53)																																																															
ST_01	Paper does not reach sorter paper exit sensor (SF-S15) Paper does not reach sort sensor transport section (SF-S53)																																																															
ST_02	Paper does not stagnates sorter paper exit sensor (SF-S15) Paper stagnates at sort sensor transport section (SF-S53)																																																															
ST_ID	Non-sort sensor door open paper misfeed (SF-S53)																																																															
ST_OD	Sort sensor third door open paper misfeed (SF-S53)																																																															
DF_PFD	RADF spare paper misfeed																																																															
DF_SET	RADF paper misfeed																																																															
DF_EXT	RADF paper exit error																																																															
DF_REV	RADF inversion error																																																															

Main code	Sub code	Item	Content	Adjustment range
22	04	Display total JAM counter.	(a) Operation/display [?]: If the JAM counter is being displayed, the JAM map screen appears. If the JAM map counter is being displayed, the JAM counter screen appears. [→]: Displays the next JAM map screen. [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	05	Displays total counter.	SIMULATION NO.22- 5 TOTAL COUNTER DISPLAY TOTAL : XXX,XXX [PAUSE]KEY: END DISPLAY [Content] The current total counter value is displayed. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	06	Displays developer counter.	SIMULATION NO.22- 6 DEVELOPER COUNTER DISPLAY DEVELOPER : XXX,XXX [PAUSE]KEY: END DISPLAY [Content] The current developer counter value is displayed. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	07	Displays developer preset counter.	SIMULATION NO.22- 7 DEVELOPER PRESET COUNTER DISPLAY DEVELOPER PRESET : XXX,XXX [PAUSE]KEY: END DISPLAY [Content] The developer preset counter value is displayed. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	

Main code	Sub code	Item	Content	Adjustment range
22	08	Displays RADF counter.	SIMULATION NO.22- 8 RADF COUNTER DISPLAY RADF: XXX,XXX [PAUSE]KEY: END DISPLAY [Content] The current RADF counter value is displayed. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	09	Displays ADU counter.	SIMULATION NO.22- 9 TRAY AND ADU COUNTER DISPLAY TRAY 1 (COPIER LOWER) : XXX,XXX TRAY 2 (DESK UPPER) : XXX,XXX TRAY 3 (DESK LCC) : XXX,XXX MANUAL FEED TRAY : XXX,XXX DUPLEX UNIT : XXX,XXX [PAUSE]KEY: END DISPLAY [Content] The current values of the tray and ADU counters are displayed. FIRST TRAY Tray 1: Copier lower tray SECOND TRAY Tray 2: Desk upper tray THIRD TRAY (LCC) Tray 3: Desk lower tray (LCC) MANUAL FEED TRAY : Manual feed tray DUPLEX UNIT : ADU (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	10	Displays staple counter.	SIMULATION NO.22-10 STAPLE COUNTER DISPLAY STAPLE: XXX,XXX [PAUSE]KEY: END DISPLAY [Content] The current value of the staple counter is displayed. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	

Main code	Sub code	Item	Content	Adjustment range
22	12	Displays drum adjustment counter.	SIMULATION NO.22-12 DRUM ADJUSTMENT TIME DISPLAY DRUM ADJUSTMENT: XXX,XXX [S] [PAUSE]KEY: END DISPLAY [Content] The current value of the drum adjustment counter is displayed. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	13	Displays key operator code.	SIMULATION NO.22-13 KEY: OPERATOR CODE DISPLAY KEY: OPERATOR CODE: XXXXX [PAUSE]KEY: END DISPLAY [Content] The key operator code is displayed. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	14	Displays ROM version.	SIMULATION NO.22-14 S/N XXXXXXXXXX ROM VERSION DISPLAY PCU MAIN : V X.XX PCU SUB : V X.XX ICU PROG : V X.XX ICU DATA: V X.XX OPE PROG : V X.XX OPE DATA: V X.XX OPE GROM : V X.XX PRT PROG : V X.XX PRT FONT: V X.XX (PRT ESCP : V X.XX) RADF : V X.XX [PAUSE]KEY: END DISPLAY [Content] The version of the current ROM is displayed. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	

Main code	Sub code	Item	Content	Adjustment range
22	15	Displays trouble counter.	SIMULATION NO.22-15 TROUBLE COUNTER DISPLAY TROUBLE COUNTER: XXX,XXX TROUBLE MEMORY DISPLAY XX-XX, XX-XX, XX-XX, XX-XX, XX-XX XX-XX, XX-XX, XX-XX, XX-XX, XX-XX XX-XX, XX-XX, XX-XX, XX-XX, XX-XX XX-XX, XX-XX, XX-XX, XX-XX, XX-XX [PAUSE]KEY: END DISPLAY [Content] The current value of the total trouble counter and 20 trouble codes which have occurred recently are displayed, starting with the trouble code which has occurred most recently. (Main code) – (Sub code) If the number of troubles which have occurred is less than 20, “-” is substituted for the blank. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	16	Displays copy counter.	SIMULATION NO.22-16 COPY COUNTER DISPLAY COPY COUNTER: XXX,XXX [PAUSE]KEY: END DISPLAY [Content] The current value of the copy counter is displayed. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	17	Displays PDA/ZR print counter.	SIMULATION NO.22-17 PDA/ZR PRINT COUNTER DISPLAY PDA/ZR PRINT COUNTER: XXX,XXX [PAUSE]KEY: END DISPLAY [Content] The current value of the PDA/ZR print counter is displayed. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	

Main code	Sub code	Item	Content	Adjustment range
22	20	Displays printer counter.	SIMULATION NO.22-20 PRINTER COUNTER DISPLAY PRINTER COUNTER: XXX,XXX [PAUSE]KEY: END DISPLAY [Content] The current value of the printer counter is displayed. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
23		Prints counter/adjustment values.	* Printing is possible only when an optional printer board is installed. SIMULATION NO.23- _ 1.COUNTER AND ADJUSTMENT VALUE PRINTING INPUT SUB NO. AND PRESS PRINT SWITCH [Content] The current settings of the counters and adjustment values are printed. When the execution of the simulation is started, the copier starts warming up, and automatically prints a sheet of paper. (At this time, the copier displays the copy mode screen.) Until printing is finished, any key operation is disabled.After printing is finished, the simulation is automatically cleared and the copier enters the usual copy mode.	
24		Clears special counters.	SIMULATION NO.24- _ 1.TOTAL JAM / JAM MEMORY CLEAR 2.TROUBLE MEMORY AND COUNTER CLEAR 3.TRAY AND ADU COUNTER CLEAR 4.RADF COUNTER CLEAR 5.STAPLE COUNTER CLEAR 7.DRUM ADJUSTMENT TIME CLEAR 8.COPY COUNTER CLEAR 9.PDA/ZR PRINT COUNTER CLEAR 12.PRINTER COUNTER CLEAR INPUT SUB NO. AND PRESS PRINT SWITCH	

Main code	Sub code	Item	Content	Adjustment range
24	01	Clears JAM counter/JAM map.	SIMULATION NO.24- 1 TOTAL JAM / JAM MEMORY WOULD YOU MIND IF CLEARING EXECUTE? 1. EXECUTE 2. CANCEL SELECT WITH TEN KEY [1] key SIMULATION NO.24- 1 TOTAL JAM / JAM MEMORY COMPLETED CLEARING TOTAL MISFEED COUNTER DISPLAY TOTAL JAM: 000,000 [PAUSE]KEY: END DISPLAY [Content] The JAM counter and JAM map are cleared. After that, the JAM counter is displayed. (a) Operation/display [1]: The simulation is executed and the screen changes to the JAM counter screen. [2]: The simulation is stopped and the screen returns to the sub code input screen. If any key other than [1] or [2] is pressed, the error buzzer sounds. [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	02	Clears trouble counter.	SIMULATION NO.24- 2 TROUBLE MEMORY AND COUNTER WOULD YOU MIND IF CLEARING EXECUTE? 1. EXECUTE 2. CANCEL SELECT WITH TEN KEY [1] key: SIMULATION NO.24- 2 TROUBLE MEMORY AND COUNTER COMPLETED CLEARING TROUBLE COUNTER DISPLAY TROUBLE COUNTER: 000,000 [PAUSE]KEY: END DISPLAY	

Main code	Sub code	Item	Content	Adjustment range
24	02	Clears trouble counter.	[Content] The trouble counter is cleared. After that, the trouble counter is displayed. (a) Operation/display [1]: The simulation is executed and the screen changes to the trouble counter screen. [2]: The simulation is stopped and the screen returns to the sub code input screen. If any key other than [1 or [2] is pressed, the error buzzer sounds. [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	03	Clears tray and ADU counter.	SIMULATION NO.24- 3 TRAY AND ADU COUNTER CLEAR SELECT NUMBER 1 to 5 1. TRAY 1 (COPIER LOWER) 2. TRAY 2 (DESK UPPER) 3. TRAY 3 (DESK LCC) 4. MANUAL FEED TRAY 5. DUPLEX UNIT SELECT WITH TEN KEY AND PRESS PRINT SW • [1-5] keys/[PRINT] key SIMULATION NO.24- 3 COUNTER CLEAR HAS COMPLETED * * * COUNTER DISPLAY * * * : 000,000 [PAUSE]KEY: END DISPLAY [Content] A selected counter is cleared. After that, the counter value is displayed. FIRST TRAY Tray 1 : Copier lower tray SECOND TRAY Tray 2 : Desk upper tray THIRD TRAY (LCC) Tray 3 : Desk lower tray (LCC) MANUAL FEED TRAY : Manual feed tray DUPLEX UNIT : ADU (a) Operation/display [1-5]: If the [PRINT] key is pressed, the simulation is executed and the ADU counter screen is displayed. Any key other than [1] thru [5] is pressed, the error buzzer sounds. [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	

Main code	Sub code	Item	Content	Adjustment range
24	04	Clears RADF counter.	SIMULATION NO.24- 4 RADF COUNTER WOULD YOU MIND IF CLEARING EXECUTE? 1. EXECUTE 2. CANCEL SELECT WITH TEN KEY [1] key SIMULATION NO.24- 4 RADF COUNTER COMPLETED CLEARING RADF COUNTER DISPLAY RADF: 000,000 [PAUSE]KEY: END DISPLAY [Content] The RADF counter is cleared and then the RADF counter screen is displayed. (a) Operation/display [1]: The simulation is executed and the screen changes to the RADF counter screen. [2]: The simulation is stopped and the screen returns to the sub code input screen. If any key other than [1] or [2] is pressed, the error buzzer sounds. [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	05	Clears staple counter.	SIMULATION NO.24- 5 STAPLE COUNTER WOULD YOU MIND IF CLEARING EXECUTE? 1. EXECUTE 2. CANCEL SELECT WITH TEN KEY [1] key SIMULATION NO.24- 5 STAPLE COUNTER COMPLETED CLEARING STAPLE COUNTER DISPLAY STAPLE: 000,000 [PAUSE]KEY: END DISPLAY	

Main code	Sub code	Item	Content	Adjustment range
24	05	Clears staple counter.	[Content] The staple counter is cleared and then staple counter is displayed. (a) Operation/display [1]: The simulation is executed and the screen changes to the RADF counter screen. [2]: The simulation is stopped and the screen returns to the sub code input screen. If any key other than [1] or [2] is pressed, the error buzzer sounds. [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	07	Clears drum adjustment counter.	SIMULATION NO.24- 7 DRUM ADJUSTMENT TIME WOULD YOU MIND IF CLEARING EXECUTE? 1. EXECUTE 2. CANCEL SELECT WITH TEN KEY • [1] key SIMULATION NO.24- 7 DRUM ADJUSTMENT TIME COMPLETED CLEARING DRUM ADJUSTMENT TIME DISPLAY DRUM ADJUSTMENT: 000,000 [S] [PAUSE]KEY: END DISPLAY [Content] The drum adjustment counter is cleared and then the drum adjustment counter is displayed. (a) Operation/display [1]: The simulation is executed and the screen changes to the drum adjustment counter screen. [2]: The simulation is stopped and the screen returns to the sub code input screen. If any key other than [1] or [2] is pressed, the error buzzer sounds. [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	

Main code	Sub code	Item	Content	Adjustment range
24	08	Clears copy counter.	SIMULATION NO.24- 8 COPY COUNTER WOULD YOU MIND IF CLEARING EXECUTE? 1. EXECUTE 2. CANCEL SELECT WITH TEN KEY [1] key SIMULATION NO.24- 8 COPY COUNTER COMPLETED CLEARING COPY COUNTER DISPLAY COPY COUNTER: 000,000 [PAUSE]KEY: END DISPLAY [Content] The copy counter is cleared and then copy counter is displayed. (a) Operation/display [1]: The simulation is executed and the screen changes to the copy counter screen. [2]: The simulation is stopped and the screen returns to the sub code input screen. If any key other than [1] or [2] is pressed, the error buzzer sounds. [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	09	Clears PDA/ZR print counter.	SIMULATION NO.24- 9 PDA/ZR PRINT COUNTER WOULD YOU MIND IF CLEARING EXECUTE? 1. EXECUTE 2. CANCEL SELECT WITH TEN KEY [1] key SIMULATION NO.24- 9 PDA/ZR PRINT COUNTER COMPLETED CLEARING PDA/ZR PRINT COUNTER DISPLAY PDA/ZR PRINT COUNTER: 000,000 [PAUSE]KEY: END DISPLAY	

Main code	Sub code	Item	Content	Adjustment range
24	09	Clears PDA/ZR print counter.	[Content] The PDA/ZR print counter is cleared and then PDA/ZR print counter is displayed. (a) Operation/display [1]: The simulation is executed and the screen changes to the PDA/ZR print counter screen. [2]: The simulation is stopped and the screen returns to the sub code input screen. If any key other than [1] or [2] is pressed, the error buzzer sounds. [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	12	Clears printer counter.	SIMULATION NO.24-12 PRINTER COUNTER WOULD YOU MIND IF CLEARING EXECUTE? 1. EXECUTE 2. CANCEL SELECT WITH TEN KEY: [1] key SIMULATION NO.24-12 PRINTER COUNTER COMPLETED CLEARING PRINTER COUNTER DISPLAY PRINTER COUNTER: 000,000 [PAUSE]KEY: END DISPLAY [Content] The printer counter is cleared and then printer counter is displayed. (a) Operation/display [1]: The simulation is executed and the screen changes to the printer counter screen. [2]: The simulation is stopped and the screen returns to the sub code input screen. If any key other than [1] or [2] is pressed, the error buzzer sounds. [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
25		Checks the activation of the main motor unit.	SIMULATION NO.25- _ 1.MAIN MOTOR ACTIVATION 2.AUTOMATIC DEVELOPER REFERENCE SETTING 3.TONER CONTROL MODE SETUP INPUT SUB NO. AND PRESS PRINT SWITCH	

Main code	Sub code	Item	Content	Adjustment range
25	01	Checks the activation of the main motor.	SIMULATION NO.25- 1 MAIN MOTOR ACTIVATION DEVELOPER REFERENCE: XX [PAUSE]KEY: END DISPLAY [Content] The main motor/drive motor are rotated for 3 minutes to check the activation of the driving unit. In addition, the toner sensor output can be monitored. After the simulation is executed, the screen returns to the sub code input screen. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	02	Adjusts automatic developer.	SIMULATION NO.25- 2 AUTOMATIC DEVELOPER REFERENCE SETTING DEVELOPER REFERENCE: XX [PAUSE]KEY: END DISPLAY Automatic developer reference setting completion screen SIMULATION NO.25- 2 AUTOMATIC DEVELOPER REFERENCE SETTING HAS COMPLETED DEVELOPER REFERENCE: XX [PAUSE]KEY: END DISPLAY [Content] The automatic developer reference setting is performed, monitoring the toner sensor output display. After 3 minutes of stirring, the sensor is monitored 16 times and the results are averaged and stored in memory as the toner density adjustment value. After the simulation is executed, the toner density adjustment value is displayed. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	0-99

Main code	Sub code	Item	Content	Adjustment range
25	03	Sets toner control ignorance time.	SIMULATION NO.25- 3 TONER CONTROL MODE SETUP [XX]:_ [S] (0~99) INPUT SETUP VALUE AND PRESS PRINT SW [Content] The toner control ignorance time at the rotation of the main motor can be set in the range of 0 to 99 seconds. The current setting is displayed and a new value can be set. (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated and the sub code input screen is displayed. If the entered value is not valid, the input field is cleared and the error buzzer sounds. If any value is not entered, the setting remains unchanged and the sub code input screen is displayed. [0-9]: Enters new settings [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	0-99
26		Setting.	SIMULATION NO.26- 1.OPTION UNIT SETUP 2.FOOLSCAP SETUP 3.COUNTER MODE SETUP 6.DESTINATION SETUP 15.FUSING CURL MODE SETTING 18.TONER SAVE MODE SETTING 26.POWER SAVE DESTINATION SETTING 27.IMAGE DENSITY MODE SETTING INPUT SUB NO. AND PRESS PRINT SWITCH	

Main code	Sub code	Item	Content	Adjustment range
26	01	Optional setting.	SIMULATION NO.26- 1 OPTION UNIT SETUP [XX] : _ 5 .RADF + DESK 15 .RADF + DESK + SORTER INPUT SETUP VALUE AND PRESS PRINT SW [Content] Optional setting can be made. The current setting is displayed and a new setting can be entered. Default value: 5 Note: Turning on the power with no desk connected causes the trouble "U6-00," thereby disabling the machine operation. (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated and the sub code input screen is displayed. If the entered value is not valid, the input field is cleared and the error buzzer sounds. If any value is not entered, the setting remains unchanged and the sub code input screen is displayed. [0-9]: Enters new settings [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	0-15
	02	Sets foolscap paper.	SIMULATION NO.26- 2 FOOLSACP SETUP [X] : _ 1 . 8 1/2 × 1 4 2 . 8 1/2 × 1 3 INPUT SETUP VALUE AND PRESS_PRINT SW [Content] The detection size of the foolscap paper can be set for 8 1/2 x 14 inch or 8 1/2 x 13 inch. The current setting is displayed and a new setting can be entered. (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated and the sub code input screen is displayed. If the entered value is not valid, the input field is cleared and the error buzzer sounds. If any value is not entered, the setting remains unchanged and the sub code input screen is displayed. [1-2]: Enters new settings [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	1-2

Main code	Sub code	Item	Content	Adjustment range
26	03	Sets counter mode.	SIMULATION NO.26- 3 COUNTER MODE SETUP [X] :_ CODE TOTAL COUNT , MAINTENANCE COUNT 0. DOUBLE COUNT , DOUBLE COUNT 1. SINGLE COUNT , DOUBLE COUNT 2. DOUBLE COUNT , SINGLE COUNT 3. SINGLE COUNT , SINGLE COUNT INPUT SETUP VALUE AND PRESS PRINT SW [Content] The counter's count-up mode can be set. The current setting is displayed and a new setting can be entered. (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated and the sub code input screen is displayed. If the entered value is not valid, the input field is cleared and the error buzzer sounds. If any value is not entered, the setting remains unchanged and the sub code input screen is displayed. [0-3]: Enters new settings [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	0-3
	06	Sets destination.	SIMULATION NO.26- 6 DESTINATION SETUP [X] :_ [INCH] 1. SEC 3. EXTRA 2. SECL [AB] 4. JAPAN 7. SUK 5. KOREA 8. SCA 6. SEEG 9. EXTRA INPUT SETUP VALUE AND PRESS PRINT SW [Content] The destination can be set. The current setting is displayed and a new setting can be entered. (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated and the sub code input screen is displayed. If the entered value is not valid, the input field is cleared and the error buzzer sounds. If any value is not entered, the setting remains unchanged and the sub code input screen is displayed. [1-9]: Enters new settings [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	1-9

Main code	Sub code	Item	Content	Adjustment range
26	15	Sets fusing curl correction mode.	SIMULATION NO.26-15 FUSING CURL MODE SETTING [X] : _ 0. NORMAL MODE 1. FUSING CURL MODE INPUT SETUP VALUE AND PRESS PRINT SW [Content] The fusing curl correction mode can be set. If this mode is set, the driving unit rotates at all times during warming-up. The current setting is displayed and a new setting can be entered. (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated and the sub code input screen is displayed. If the entered value is not valid, the input field is cleared and the error buzzer sounds. If any value is not entered, the setting remains unchanged and the sub code input screen is displayed. [0-1]: Enters new settings [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	0-1
	18	Sets toner save mode.	SIMULATION NO.26-18 TONER SAVE MODE SETTING [X] : _ 1. ON 2. OFF INPUT SETUP VALUE AND PRESS PRINT SW [Content] The toner save mode can be set. The current setting is displayed and a new setting can be entered. (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated and the sub code input screen is displayed. If the entered value is not valid, the input field is cleared and the error buzzer sounds. If any value is not entered, the setting remains unchanged and the sub code input screen is displayed. [1-2]: Enters new settings [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	1-2

Main code	Sub code	Item	Content	Adjustment range								
26	26	Sets power save destination.	• Power save destination setting screen SIMULATION NO.26-26 POWER SAVE DESTINATION SETTING [X]:_ 0.OFF 1.A 2.S INPUT SETUP VALUE AND PRESS PRINT SW [Content] Used to set the power save destination. The power save time set by key operation P21 differs depending on the set destination. <table><tr><td>Power save destination</td><td>Power save set time (Key operation P21)</td></tr><tr><td>0 (OFF):</td><td>00:00 – 24:00 (C: Cancel)</td></tr><tr><td>1 (A) :</td><td>00:10 – 02:00</td></tr><tr><td>2 (S) :</td><td>00:10 – 00:20</td></tr></table> (a) Operation/display [START]: If the input value is valid, the current set value is renewed and the machine goes to the next input field. If the input value is invalid, the input field is cleared and the error buzzer sounds. If there is no input, the value is not set and the machine goes to the sub code input screen. [0-2]: The operation is executed and the machine goes to the sub code input screen. [CLEAR]: The input field is cleared. [PAUSE]: The value is not set and the machine goes to the sub code input screen. [CA]: The execution is stopped and the simulation is terminated.	Power save destination	Power save set time (Key operation P21)	0 (OFF):	00:00 – 24:00 (C: Cancel)	1 (A) :	00:10 – 02:00	2 (S) :	00:10 – 00:20	
Power save destination	Power save set time (Key operation P21)											
0 (OFF):	00:00 – 24:00 (C: Cancel)											
1 (A) :	00:10 – 02:00											
2 (S) :	00:10 – 00:20											
	27	Sets image density mode.	SIMULATION NO.26-27 IMAGE DENSITY MODE SETTING AUTO [X]: X 1.(PEN) 2.(ORG) MANUAL [X]: X 1.(PEN) 2.(ORG) PHOTO [X]: X 1.(PHOTO1) 2.(PHOTO2) SOFT_P_[X]: X 1.(SOFT_P1) 2.(SOFT_P2) [→]KEY:MOVE PRINT SW:EXECUTE [Content] The image density mode can be set. The current setting is displayed in the [X] and a new setting can be entered. (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated and the cursor moves to the next input field. If the entered value is not valid, the input field is cleared and the error buzzer sounds. If any value is not entered, the setting remains unchanged and the sub code input screen is displayed. [1-2]: Enters new settings [→]: Moves the next input field. [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.									

Main code	Sub code	Item	Content	Adjustment range
27		Sets PPC communication parameters.	SIMULATION NO.27- 1.PPC COMMUNICATION TROUBLE SETTING 2.PC/MODEM TELEPHONE NUMBER SETTING 3.PC/MODEM ID NUMBER SETTING 4.PPC SERVICE START/END SETTING 5.PPC TAG NUMBER SETTING INPUT SUB NO. AND PRESS PRINT SWITCH	
27	01	Sets PPC communication trouble.	SIMULATION NO.27- 1 PPC COMMUNICATION TROUBLE (U7-00) SETTING[X]:_ 0. TROUBLE DISPLAY OFF 1. TROUBLE DISPLAY ON INPUT SETUP VALUE AND PRESS PRINT SW [Content] Communication troubles (U7-00) between the PPC and PC/Modem in the PPC communication system can be set. If set for "0", the copier will be hung up if any communication trouble occur. If set for "1", the copier will not be hung up if any communication trouble occur. The current setting is displayed and a new setting can be entered. (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated and the sub code input screen is displayed. If the entered value is not valid, the input field is cleared and the error buzzer sounds. If any value is not entered, the setting remains unchanged and the sub code input screen is displayed. [0-1]: Enters new settings [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	0-1

Main code	Sub code	Item	Content	Adjustment range
27	02	Sets PC/Modem telephone number.	SIMULATION NO.27- 2 PC/MODEM TELEPHONE NUMBER SETTING SELECT HOST NUMBER (1-4):_ SELECT TELEPHONE NUMBER (1-4):_ INPUT SETUP VALUE AND PRESS PRINT SW SIMULATION NO.27- 2 PC/MODEM TELEPHONE NUMBER SETTING CURRENT TELEPHONE NUMBER HOST 1/TEL#1 XXXXXXXXXXXXXXXXXXXXXXXX CHANGE THIS TELPHONE NUMBER? 1. YES 2. NO SELECT WITH TEN KEY [1] key SIMULATION NO.27- 2 PC/MODEM TELEPHONE NUMBER SETTING CURRENT TELEPHONE NUMBER HOST 1/TEL#1 XXXXXXXXXXXXXXXXXXXXXXXX NEW TELEPHONE NUMBER HOST 1/TEL#1 _____ ([P]KEY:"*" [→]KEY:"#" [?]KEY:" ",") INPUT SETUP VALUE AND PRESS PRINT SW SIMULATION NO.27- 2 PC/MODEM TELEPHONE NUMBER SETTING CURRENT TELEPHONE NUMBER HOST 1/TEL#1 XXXXXXXXXXXXXXXXXXXXXXXX NEW TELEPHONE NUMBER HOST 1/TEL#1 XXXXXXXXXXXXXXXXXXXXXXXX [PAUSE]KEY:END DISPLAY [Content] The telephone number of the host computer in the PPC communication system can be set. Enter the assigned number and telephone number name of the host computer with the numeric keys (1 ~ 4) before pressing the [PRINT] key. Then the telephone number currently registered in that telephone number name is displayed. If you want to change the setting, press the [1] key to display the telephone number input screen. Enter a new telephone number. Press the [PRINT] key to register the new telephone number in the PC/Modem. If the PC/Modem are not connected when the current setting of the PC/Modem is read, the "U7-00" trouble occurs. (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated and the screen changes to the next one. If the entered value is not valid, the input field is cleared and the error buzzer sounds. [0-9]: Enters new settings. [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	

Main code	Sub code	Item	Content	Adjustment range
27	03	Sets PC/Modem ID number.	SIMULATION NO.27- 3 PC/MODEM ID NUMBER SETTING WHICH DO YOU CHANGE ID NUMBER (1 or 2) 1. PPC 2. PC/MODEM SELECT WITH TEN_KEY - When "1" is selected: SIMULATION NO.27- 3 PPC ID NUMBER SETTING PPC CURRENT ID NUMBER XXXXXXXXXXXX CHANGE THIS ID NUMBER ? 1. YES 2. NO SELECT WITH TEN KEY [1] key SIMULATION NO.27- 3 PPC ID NUMBER SETTING PPC CURRENT ID NUMBER XXXXXXXXXXXX PPC NEW ID NUMBER _____ INPUT SETUP VALUE AND PRESS PRINT SW SIMULATION NO.27- 3 PPC ID NUMBER SETTING PPC CURRENT ID NUMBER XXXXXXXXXXXX [PAUSE]KEY:END DISPLAY - When "2" is selected: SIMULATION NO.27- 3 PC/MODEM ID NUMBER SETTING PC/MODEM CURRENT ID NUMBER XXXXXXXXXXXX CHANGE THIS ID NUMBER ? 1. YES 2. NO SELECT WITH TEN KEY [1] key SIMULATION NO.27- 3 PC/MODEM ID NUMBER SETTING PC/MODEM CURRENT ID NUMBER XXXXXXXXXXXX PC/MODEM NEW ID NUMBER _____ INPUT SETUP VALUE AND PRESS PRINT SW	

Main code	Sub code	Item	Content	Adjustment range
27	03	Sets PC/Modem ID number.	SIMULATION NO.27- 3 PC/MODEM ID NUMBER SETTING PC/MODEM CURRENT ID NUMBER XXXXXXXXXX [PAUSE]KEY:END DISPLAY [Content] The ID numbers of the PPC and PC/Modem in the PPC communication system can be set. Select which ID number you want to set, one for the PPC or one for the PC/Modem. The screen displays the current ID number setting. If you want to change the setting, press the [1] key to display the ID number input screen. Enter a new ID number. Press the [PRINT] key to register the entered ID number in the PC/Modem. If the PC/Modem are not connected when the current setting of the PC/Modem is read, the "U7-00" trouble occurs. (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated and the screen changes to the next one. If the entered value is not valid, the input field is cleared and the error buzzer sounds. [0-9]: Enters new settings. [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	04	Sets start/end of service.	SIMULATION NO.27- 4 PPC SERVICE START/END SETTING 1.PPC SERVICE START SETTING 2.PPC SERVICE END SETTING SELECT WITH TEN KEY - When "1" is selected: SIMULATION NO.27- 4 PPC SERVICE START/END SETTING PPC SERVICE START SETUP HAS COMPLETED [PAUSE]KEY:END DISPLAY - When "2" is selected: SIMULATION NO.27- 4 PPC SERVICE START/END SETTING PPC SERVICE END SETUP HAS COMPLETED [PAUSE]KEY:END DISPLAY	

Main code	Sub code	Item	Content	Adjustment range
27	04	Sets start/end of service.	[Content] The start/end of service in the PPC communication system can be set. Select either the start service or the end of service and the PPC will send the corresponding command to the PC/Modem. If the PC/Modem receives the command, the message indicating that setting is complete appears. (a) Operation/display [1]: Sends the service start command. [2]: Sends the service end command. If any key other than [1] or [2] is pressed, the error buzzer sounds. [PAUSE]: No setting is made and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	05	Sets tag number.	SIMULATION NO.27- 5 PPC TAG NUMBER SETTING CURRENT TAG NUMBER XXXXXXXXXX CHANGE THIS TAG NUMBER ? 1. YES 2. NO SELECT WITH TEN KEY • [1] key SIMULATION NO.27- 5 PPC TAG NUMBER SETTING CURRENT TAG NUMBER XXXXXXXXXX NEW TAG NUMBER ----- INPUT SETUP VALUE AND PRESS PRINT SW SIMULATION NO.27- 5 PPC TAG NUMBER SETTING CURRENT TAG NUMBER XXXXXXXXXX [PAUSE]KEY:END DISPLAY [Content] The PPC tag number (grade-up number) can be set. The screen displays the current setting of the tag number. If you want to change the setting, press the [1] key to display the tag number input screen. Enter a new tag number. Press the [PRINT] key to register the new tag number. (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated and the screen changes to the next one. If the entered value is not valid, the input field is cleared and the error buzzer sounds. [0-9]: Enters new settings. [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	

Main code	Sub code	Item	Content	Adjustment range																																							
30		Displays the operating status of the paper/cassette sensors.	SIMULATION NO.30- _ 1.MONITORING MAIN UNIT PAPER SENSOR 2.MONITORING PAPER CASSETTE SIZE INPUT SUB NO. AND PRESS PRINT SWITCH																																								
	01	Displays the operating status of the copier sensors.	SIMULATION NO.30- 1 MONITORING MAIN UNIT PAPER SENSOR PFD , PPD1 , PPD2 , PSD , POD MPED , LPED , LLUD TFD , CSWF , CSWL , CSWR [PAUSE]KEY:END DISPLAY [Content] The operating status of the copier sensors <table><tr><th>Display</th><th>Name</th><th>Normal display/Highlighted</th></tr><tr><td>PFD</td><td>Paper feed detector</td><td>Paper absence/Paper presence</td></tr><tr><td>PPD1</td><td>Paper transport detector 1</td><td>Paper absence/Paper presence</td></tr><tr><td>PPD2</td><td>Paper transport detector 2</td><td>Paper absence/Paper presence</td></tr><tr><td>PSD</td><td>Paper separation detector</td><td>Paper absence/Paper presence</td></tr><tr><td>POD</td><td>Paper exit detector</td><td>Paper absence/Paper presence</td></tr><tr><td>MPED</td><td>Manual feed non-paper detector</td><td>Paper presence/Paper absence</td></tr><tr><td>LPED</td><td>Lower cassette paper absence detector</td><td>Paper presence/Paper absence</td></tr><tr><td>LLUD</td><td>Lower cassette lift-up detector</td><td>Down/Up</td></tr><tr><td>TFD</td><td>Waste toner full detector</td><td>OK/Full</td></tr><tr><td>CSWF</td><td>Front cabinet open detector</td><td>Closed/Open</td></tr><tr><td>CSWL</td><td>Left-side cabinet open detector</td><td>Closed/Open</td></tr><tr><td>CSWR</td><td>Right-side cabinet open detector</td><td>Closed/Open</td></tr></table> (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	Display	Name	Normal display/Highlighted	PFD	Paper feed detector	Paper absence/Paper presence	PPD1	Paper transport detector 1	Paper absence/Paper presence	PPD2	Paper transport detector 2	Paper absence/Paper presence	PSD	Paper separation detector	Paper absence/Paper presence	POD	Paper exit detector	Paper absence/Paper presence	MPED	Manual feed non-paper detector	Paper presence/Paper absence	LPED	Lower cassette paper absence detector	Paper presence/Paper absence	LLUD	Lower cassette lift-up detector	Down/Up	TFD	Waste toner full detector	OK/Full	CSWF	Front cabinet open detector	Closed/Open	CSWL	Left-side cabinet open detector	Closed/Open	CSWR	Right-side cabinet open detector	Closed/Open	
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02	Displays the operating status of paper size detection switch.	SIMULATION NO.30- 2 MONITORING PAPER CASSETTE SIZE PWS1 , PWS2 , PWS3 , PWS4 PLS1 , PLS2 LCSS1 , LCSS2 , LCSS3 , LCSS4 [PAUSE]KEY:END DISPLAY [Content] Displays the status of the manual feed tray paper width detection switch and the paper length detection switch and each cassette size switch. • Manual feed tray paper width detection switch <table><tr><td></td><td>[AB series]</td><td>[Inch series]</td></tr><tr><td>PWS1:</td><td>A3</td><td>8½" × 11"</td></tr><tr><td>PWS2:</td><td>B4</td><td>—</td></tr><tr><td>PWS3:</td><td>A4R</td><td>5½" × 8½"</td></tr><tr><td>PWS4:</td><td>B5R</td><td>—</td></tr></table> • Manual feed tray paper length detection switch <table><tr><td></td><td>[Inch series]</td></tr><tr><td>PLS1:</td><td>8½" × 11"R</td></tr><tr><td>PLS2:</td><td>8½" × 11" R, 11" × 17", 8½" × 14"</td></tr></table>		[AB series]	[Inch series]	PWS1:	A3	8½" × 11"	PWS2:	B4	—	PWS3:	A4R	5½" × 8½"	PWS4:	B5R	—		[Inch series]	PLS1:	8½" × 11"R	PLS2:	8½" × 11" R, 11" × 17", 8½" × 14"																				
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Main code	Sub code	Item	Content	Adjustment range
30	02	Displays the operating status of paper size detection switch.	Cassette size switch Switches looking from the front frame side CSS4 CSS3 CSS2 CSS1 (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
41		Checks document size detection sensor.	SIMULATION NO.40- _ 1.ORIGINAL SIZE PHOTOSENSOR CHECK 2.ORIGINAL SIZE PHOTOSENSOR SETUP 3.ORIGINAL SIZE PHOTOSENSOR OUTPUT/ AND SETTING VALUE DISPLAY INPUT SUB NO. AND PRESS PRINT_SWITCH	
	01	Checks document size detection sensor.	<AB format> SIMULATION NO.41- 1 ORIGINAL SIZE PHOTOSENSOR CHECK -- B5 OCSW A4 B5R A4R B4 A3 [PAUSE]KEY:END DISPLAY <Inch format> SIMULATION NO.41- 1 ORIGINAL SIZE PHOTOSENSOR CHECK 5 1/2 x 8 1/2 11 1/2 x 8 1/2 OCSW -- 11 1/2 x 8 1/2 R -- 11 1/2 x 14 11 1/2 x 17 [Content] The data status of the document size detection sensor (a) Operation/display The display is in: Reverse vide when the document size detection sensor indicates that the document is present Normal state when the document size detection sensor indicates that the document is absent. The display is in: Reverse video when the CSW is open. Normal state when the CSW is closed. [PAUSE]: The execution of the simulation is stopped and the screen changes to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	

Main code	Sub code	Item	Content	Adjustment range
41	02	Adjusts the document size detection sensor.	SIMULATION NO.41- 2 ORIGINAL SIZE PHOTORENSOR SETUP WITH THE ORIGINAL COVER OPENED, TURN ON THE PRINT SWITCH WITH NO ORIGINAL ON THE ORIGINAL TABLE. [PAUSE]KEY:END DISPLAY SIMULATION NO.41- 2 ORIGINAL SIZE PHOTORENSOR SETUP SET AN A3-SIZE COPY PAPER ON THE ORIGINAL TABLE, AND TURN ON THE PRINT SWITCH WITH THE ORIGINAL COVER OPENED. [PAUSE]KEY:END DISPLAY • <AB format> SIMULATION NO.41- 2 ORIGINAL SIZE PHOTORENSOR CHECK -- B5 OCSW A4 B5R A4R B4 A3 [PAUSE]KEY:END DISPLAY • <Inch format> SIMULATION NO.41- 2 ORIGINAL SIZE PHOTORENSOR CHECK 5 1/2 x 8 1/2 11 1/2 x 8 1/2 OCSW -- 11 1/2 x 8 1/2 R -- 11 1/2 x 14 11 1/2 x 17	0-255

Main code	Sub code	Item	Content	Adjustment range																																																			
41	02	Adjusts the document size detection sensor.	[Content] The detection level of the document size detection sensor is adjusted.If the [PRINT] key is pressed with the document cover open and without placing any document, the output level of the sensor that has detected no document is read. Then, if the [PRINT] key is pressed with the document cover open and a sheet of A3 size paper placed on the document table, the output level of the sensor that has detected a document is read. The judgement level is calculated by comparing the above two output levels. Finally, the data status of the document size detection sensor is displayed according to the judgement level stored in memory. (a) Operation/display The display is in: Reverse video when the document size detection sensor indicates that the document is present Normal state when the document size detection sensor indicates that the document is absent. The display is in: Reverse video when the CSW is open. Normal state when the CSW is closed. [PAUSE]: The execution of the simulation is stopped and the screen changes to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.																																																				
	03	Displays the output value and setting of the document size detection sensor.	• <AB format> SIMULATION NO.41- 3 ORIGINAL SIZE PHOTSENSOR SETUP <table><thead><tr><th></th><th>RCV LV</th><th>SETUP</th></tr><tr><th>--</th><th>---</th><th>---</th></tr></thead><tbody><tr><td>B5</td><td>XXX</td><td>XXX</td></tr><tr><td>A4</td><td>XXX</td><td>XXX</td></tr><tr><td>B5R</td><td>XXX</td><td>XXX</td></tr><tr><td>A4R</td><td>XXX</td><td>XXX</td></tr><tr><td>B4</td><td>XXX</td><td>XXX</td></tr><tr><td>A3</td><td>XXX</td><td>XXX</td></tr></tbody></table> [PAUSE]KEY:END DISPLAY • <Inch format> SIMULATION NO.41- 3 ORIGINAL SIZE PHOTSENSOR SETUP <table><thead><tr><th></th><th>RCV LV</th><th>SETUP</th></tr><tr><th>--</th><th>---</th><th>---</th></tr></thead><tbody><tr><td>5 1/2 x 8 1/2</td><td>XXX</td><td>XXX</td></tr><tr><td>11 1/2 x 8 1/2</td><td>XXX</td><td>XXX</td></tr><tr><td>--</td><td>---</td><td>---</td></tr><tr><td>11 1/2 x 8 1/2 R</td><td>XXX</td><td>XXX</td></tr><tr><td>--</td><td>---</td><td>---</td></tr><tr><td>11 1/2 x 14</td><td>XXX</td><td>XXX</td></tr><tr><td>11 1/2 x 17</td><td>XXX</td><td>XXX</td></tr></tbody></table> [Content] The output value and judgement value of the document size detection sensor are displayed (0 ~ 255) (a) Operation/display The level of the document size detection sensor is displayed. [PAUSE]: The execution of the simulation is stopped and the screen changes to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.		RCV LV	SETUP	--	---	---	B5	XXX	XXX	A4	XXX	XXX	B5R	XXX	XXX	A4R	XXX	XXX	B4	XXX	XXX	A3	XXX	XXX		RCV LV	SETUP	--	---	---	5 1/2 x 8 1/2	XXX	XXX	11 1/2 x 8 1/2	XXX	XXX	--	---	---	11 1/2 x 8 1/2 R	XXX	XXX	--	---	---	11 1/2 x 14	XXX	XXX	11 1/2 x 17	XXX	XXX	
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Main code	Sub code	Item	Content	Adjustment range
42		Clears developer counter.	SIMULATION NO.42 DEVELOPER COUNTER CLEAR WOULD YOU MIND IF CLEARING EXECUTE? 1. EXECUTE 2. CANCEL SELECT WITH TEN KEY [1] key SIMULATION NO.42 DEVELOPER COUNTER CLEAR COMPLETED CLEARING DEVELOPER COUNTER DISPLAY DEVELOPER:000,000 [PAUSE]KEY:END DISPLAY [Content] The developer counter is cleared and then the developer counter is displayed. (a) Operation/display [1]: The simulation is executed and the screen changes to the developer counter screen. [2]: The execution of the simulation is stopped and the screen changes to the main code input screen. If any key other than [1] or [2] is pressed, the error buzzer sounds. [PAUSE]: The execution of the simulation is stopped and the screen changes to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
43		Sets fusing temperature.	SIMULATION NO.43- _ 1.FUSER TEMPERATURE SETUP (NORMAL MODE) 2.FUSER TEMPERATURE SETUP (ECONOMY MODE) INPUT SUB NO. AND PRESS PRINT SWITCH	
	01	Sets fusing temperature (normal mode).	SIMULATION NO.43- 1 FUSER TEMPERATURE SETUP (NORMAL MODE) [XXX]:_ °C 160°C , 185°C 165°C , 190°C 170°C , 195°C 175°C , 200°C 180°C , 205°C INPUT SETUP VALUE AND PRESS PRINT SW	160-205

Main code	Sub code	Item	Content	Adjustment range
43	01	Sets fusing temperature (normal mode).	[Content] The current setting of fusing temperature in the normal mode is displayed and a new setting can be entered. (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated and the screen changes to the sub code input screen. If the entered value is not valid, the input field is cleared and the error buzzer sounds. If any value is not entered, the setting is not updated and the screen changes to the sub code input screen. [0-9]: Enters fusing temperature settings. [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	02	Sets fusing temperature (in economy mode).	SIMULATION NO.43- 2 FUSER TEMPERATURE SETUP (ECONOMY MODE) MARGIN TO NORMAL MODE [-XXX]: _ °C - 0°C , -25°C - 5°C , -30°C -10°C , -35°C -15°C , -40°C -20°C , -45°C ATTENTION, CAN NOT SET 150°C OR_LESS INPUT SETUP VALUE AND PRESS PRINT SW [Content] The current setting of the fusing temperature in the economy mode is displayed and a new setting can be set. (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated and the screen changes to the sub code input screen. If the entered value is not valid, the input field is cleared and the error buzzer sounds. If any value is not entered, the setting is not updated and the screen changes to the sub code input screen. [0-9]: Enters fusing temperature settings. [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	0-45
44		Sets process control mode.	SIMULATION NO.44- _ 1.PROCESS CONTROL MODE SETUP 2.DM SENSOR ADJUSTMENT 3.ID SENSOR ADJUSTMENT 4.PROCESS CONTROL INITIAL DENSITY SETUP 7.DM/ID SENSOR GAIN CHECK 9.PROCESS CONTROL DATA DISPLAY 12.DM/ID PATCH, DRUM BASE OUTPUT DISPLAY INPUT SUB NO. AND PRESS PRINT SWITCH	

Main code	Sub code	Item	Content	Adjustment range
44	01	Sets each mode of process control.	SIMULATION NO.44- 1 PROCESS CONTROL MODE SETUP[X]: _ PROCESS DRUM CONTROL ADJUSTMENT 0. OFF OFF 1. ON OFF 2. OFF ON 3. ON ON INPUT SETUP VALUE AND PRESS PRINT SW [Content] The current setting of process control is displayed and a new setting can be set. After the execution of the simulation, the screen returns to the sub code input screen. (a) Operation/display [PRINT]: If the entered value is valid, the current setting in brackets is updated. If the entered value is not valid, the entered value is cleared and the error buzzer sounds. If the [PRINT] key is pressed without entering any new setting, the current setting is not updated. [0-3]: Enters new settings [C]: Clears the entered value. [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	0-3
	02	Adjusts DM sensor.	SIMULATION NO.44- 2 DM SENSOR ADJUSTMENT SENSOR RESPONSE :XXX [PAUSE]KEY:END DISPLAY [Content] The main motor/drum motor rotate for 3 minutes and the output value of the drum marking sensor is displayed. Adjust the VR1 inside the process control unit so that the output value is 210 ± 30. After the execution of the simulation, the screen returns to the sub code input screen. [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	03	Adjusts ID sensor.	SIMULATION NO.44- 3 ID SENSOR ADJUSTMENT SENSOR RESPONSE :XXX [PAUSE]KEY:END DISPLAY [Content] The image density sensor gain is selected, the main motor/drum motor rotate for 3 minutes. The output value of the image density sensor is displayed. Adjust the VR2 inside the process control unit so that the output value is 210 ± 30. After the execution of the simulation, the screen returns to the sub code input screen. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	

Main code	Sub code	Item	Content	Adjustment range
44	04	Sets standard patch density.	SIMULATION NO.44- 4 PROCESS CONTROL INITIAL DENSITY SETUP INITIAL DENSITY[XXX]: XXX (0~255) INPUT SETUP VALUE AND PRESS PRINT SW [Content] The current setting of the standard patch density during process controlling is displayed and a new setting can be set. (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated and the sub code input screen is displayed. If the entered value is not valid, the input field is cleared and the error buzzer sounds. If any value is not entered, the setting is not updated and the screen changes to the sub code input screen. [0-9]: Enters settings. [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	0-255
	07	Checks gain selection between DM/ID sensors.	SIMULATION NO.44- 7 DM/ID SENSOR GAIN CHECK DM7:XXX , ID7:XXX DM6:XXX , ID6:XXX DM5:XXX , ID5:XXX DM4:XXX , ID4:XXX DM3:XXX , ID3:XXX DM2:XXX , ID2:XXX DM1:XXX , ID1:XXX [PAUSE]KEY:END DISPLAY [Content] The output levels of the drum marking sensor and the image density sensor obtained when the gain rank is selected can be checked. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	09	Displays process control data.	SIMULATION NO.44- 9 PROCESS CONTROL DATA DISPLAY P_CNT:X DRUM COUNT :XX,XXX,XXX STD_PAT :XXX GR(ORG/ADJ) DV(ORG/ADJ) LD(ORG/ADJ) AUTO :XXX/XXX XXX/XXX XXX/XXX MANUAL:XXX/XXX XXX/XXX XXX/XXX PHOTO :XXX/XXX XXX/XXX XXX/XXX SOFT_P:XXX/XXX XXX/XXX XXX/XXX T/S :XXX/XXX XXX/XXX XXX/XXX PRINT :XXX/XXX XXX/XXX XXX/XXX [PAUSE]KEY:END DISPLAY	

Main code	Sub code	Item	Content	Adjustment range																																																																														
44	09	Displays process control data.	[Content] Process control data are displayed. <table><tr><td>STD_PAT</td><td>The standard patch density (Setting of SIM44-04)</td></tr><tr><td>DRUM_CNT</td><td>Drum adjustment counter</td></tr><tr><td>P_CNT</td><td>Patch read count in the previous process control</td></tr><tr><td>GRID_BIAS (ORG)</td><td>Grid bias setting</td></tr><tr><td>GRID_BIAS (ADJ)</td><td>Grid bias adjustment value</td></tr><tr><td>DV_BAIS (ORG)</td><td>Developing bias setting</td></tr><tr><td>DV_BIAS (ADJ)</td><td>Developing bias adjustment value</td></tr><tr><td>LD_POWER (ORG)</td><td>Laser power setting</td></tr><tr><td>LD_POWER (ADJ)</td><td>Laser power adjustment value</td></tr></table> (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	STD_PAT	The standard patch density (Setting of SIM44-04)	DRUM_CNT	Drum adjustment counter	P_CNT	Patch read count in the previous process control	GRID_BIAS (ORG)	Grid bias setting	GRID_BIAS (ADJ)	Grid bias adjustment value	DV_BAIS (ORG)	Developing bias setting	DV_BIAS (ADJ)	Developing bias adjustment value	LD_POWER (ORG)	Laser power setting	LD_POWER (ADJ)	Laser power adjustment value																																																													
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LD_POWER (ADJ)	Laser power adjustment value																																																																																	
	12	Displays DM/ID patch and drum base output.	<table><tr><td colspan="5">SIMULATION NO. 44-12</td></tr><tr><td colspan="5">DM/ID PATCH, DRUM BASE OUTPUT DISPLAY</td></tr><tr><td></td><td>GAIN</td><td>PT1/BS1</td><td>PT2/BS2</td><td>PT3/BS3</td></tr><tr><td>DM</td><td>: X</td><td>XXX/XXX</td><td></td><td></td></tr><tr><td>ID (1)</td><td>: X</td><td>XXX/XXX</td><td>XXX/XXX</td><td>XXX/XXX</td></tr><tr><td>(2)</td><td>: X</td><td>XXX/XXX</td><td>XXX/XXX</td><td>XXX/XXX</td></tr><tr><td>(3)</td><td>: X</td><td>XXX/XXX</td><td>XXX/XXX</td><td>XXX/XXX</td></tr><tr><td>(4)</td><td>: X</td><td>XXX/XXX</td><td>XXX/XXX</td><td>XXX/XXX</td></tr><tr><td>(5)</td><td>: X</td><td>XXX/XXX</td><td>XXX/XXX</td><td>XXX/XXX</td></tr><tr><td colspan="5">[PAUSE]KEY:END DISPLAY</td></tr></table> [Content] The outputs of DM/ID patch and drum base in the previous process control are displayed. <table><tr><td>DM GAIN</td><td>DM sensor gain</td></tr><tr><td>PT1</td><td>Output of DM sensor marking section</td></tr><tr><td>BS1</td><td>Output of DM sensor drum base</td></tr><tr><td>ID (1) GAIN</td><td>1st gain of IS sensor</td></tr><tr><td>PT1</td><td>1st output of ID sensor patch 1</td></tr><tr><td>BS1</td><td>1st output of ID sensor drum base</td></tr><tr><td>PT2</td><td>1st output of ID sensor patch 2</td></tr><tr><td>BS2</td><td>1st output of ID sensor drum base</td></tr><tr><td>PT3</td><td>1st output of ID sensor patch 3</td></tr><tr><td>BS3</td><td>1st output of ID sensor drum base</td></tr><tr><td>ID (2)</td><td>2nd output of ID sensor</td></tr><tr><td>ID (3)</td><td>3rd output of ID sensor</td></tr><tr><td>ID (4)</td><td>4th output of ID sensor</td></tr><tr><td>ID (5)</td><td>5th output of ID sensor</td></tr></table> (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution of the simulation is stopped and the simulation is terminated.	SIMULATION NO. 44-12					DM/ID PATCH, DRUM BASE OUTPUT DISPLAY						GAIN	PT1/BS1	PT2/BS2	PT3/BS3	DM	: X	XXX/XXX			ID (1)	: X	XXX/XXX	XXX/XXX	XXX/XXX	(2)	: X	XXX/XXX	XXX/XXX	XXX/XXX	(3)	: X	XXX/XXX	XXX/XXX	XXX/XXX	(4)	: X	XXX/XXX	XXX/XXX	XXX/XXX	(5)	: X	XXX/XXX	XXX/XXX	XXX/XXX	[PAUSE]KEY:END DISPLAY					DM GAIN	DM sensor gain	PT1	Output of DM sensor marking section	BS1	Output of DM sensor drum base	ID (1) GAIN	1st gain of IS sensor	PT1	1st output of ID sensor patch 1	BS1	1st output of ID sensor drum base	PT2	1st output of ID sensor patch 2	BS2	1st output of ID sensor drum base	PT3	1st output of ID sensor patch 3	BS3	1st output of ID sensor drum base	ID (2)	2nd output of ID sensor	ID (3)	3rd output of ID sensor	ID (4)	4th output of ID sensor	ID (5)	5th output of ID sensor	
SIMULATION NO. 44-12																																																																																		
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DM	: X	XXX/XXX																																																																																
ID (1)	: X	XXX/XXX	XXX/XXX	XXX/XXX																																																																														
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(3)	: X	XXX/XXX	XXX/XXX	XXX/XXX																																																																														
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Main code	Sub code	Item	Content	Adjustment range														
46		Adjusts exposure level.	SIMULATION NO.46- _ 1.EXPOSURE LEVEL ADJUSTMENT (COPY) 2.EXPOSURE LEVEL SETTING (EACH MODE) 3.EXPOSURE LEVEL SETTING (COPY) 7.TONE ADJUSTMENT SETTING (COPY) INPUT SUB NO. AND PRESS PRINT SWITCH															
	01	Adjusts exposure level (copy).	[Content] The exposure level in the copy mode can be adjusted. If the [PRINT] key is pressed after entering a sub code, the copier exits the simulation mode and starts warming up. After warming up, the copier becomes the copy ready state, displaying the current setting of the exposure level in the [XXX]. In the case of the manual/photo/soft focus photo modes, the exposure setting is determined based on EXP-3.0. Other density settings are automatically determined. (The setting varies by 10 levels for every EXP-0.5.) When the density selection key is set for [Dark], copies are made at a density level of EXP5; when the density selection key is set for [Light], copies are made at a density level of EXP1. The setting can be changed with the numeric keypad. After entering a new value with the numeric keypad, the setting is updated by pressing the [PRINT] key. (The cursor remains at the same copy density mode.) The copy density mode can be changed with the [→] key. The current setting of the copy density mode is displayed in reverse video in the [XXX]. If the [PRINT] key is pressed without entering a new setting, a copy is made at the current copy density setting. However, multiple copies cannot be carried out. * The greater the input value, the darker copy density becomes; the smaller the input value, the lighter copy density becomes. <table><tr><td></td><td></td><td>Adjustment range</td></tr><tr><td>Auto</td><td>AE_3.0</td><td>30 ~ 170</td></tr><tr><td>Manual</td><td>N_3.0</td><td>30 ~ 170</td></tr><tr><td>Photo</td><td>P_3.0</td><td>30 ~ 170</td></tr><tr><td>Soft photo</td><td>SFTP_3.0</td><td>30 ~ 170</td></tr></table> WARMING UP . PLEASE WAIT . 100 AE_3.0 [XXX] N_3.0 [XXX] P_3.0 [XXX] SFTP_3.0 [XXX] 30~170 100 (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated. If the entered value is not valid, the input field is cleared and the error buzzer sounds. If the entered value is not valid, the input field is cleared and the error buzzer sounds. If any value is not entered, the setting is not updated and copies are made at the current copy density setting. [0-9]: Enters new settings (the setting is displayed at the COPIES SELECTED display). [C]: Clears the input field. [→]: Moves the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. If the sub code "1" is entered and the simulation is executed, the copier directly becomes the copy ready state, omitting the shading/process control.			Adjustment range	Auto	AE_3.0	30 ~ 170	Manual	N_3.0	30 ~ 170	Photo	P_3.0	30 ~ 170	Soft photo	SFTP_3.0	30 ~ 170
		Adjustment range																
Auto	AE_3.0	30 ~ 170																
Manual	N_3.0	30 ~ 170																
Photo	P_3.0	30 ~ 170																
Soft photo	SFTP_3.0	30 ~ 170																

Main code	Sub code	Item	Content	Adjustment range
46	01	Adjusts exposure level (copy).	To clear the exposure adjustment mode: 1. Turn ON the [CA] key, or 2. Turn ON/OFF the main switch (on the left-side of the copier), or 3. Enter the simulation mode and press the [CA] key to exit the simulation mode.	
	02	Inputs exposure level adjustment value (setting in each copy mode).	SIMULATION NO.46- 2 EXPOSURE LEVEL SETTING (EACH MODE) COPY (MANUAL MODE) 0~200 N_1 [XXX]:XXX N_3.5[XXX]:XXX N_1.5[XXX]:XXX N_4 [XXX]:XXX N_2 [XXX]:XXX N_4.5[XXX]:XXX N_2.5[XXX]:XXX N_5 [XXX]:XXX N_3 [XXX]:XXX COPY (AUTO MODE) AE_3 [XXX]:XXX 0~200 [→]KEY:MOVE PRINT SW:EXECUTE [DENSITY]KEY:CHANGE DENSITY MODE [DENSITY] key	AE: 0-200 ME: 0-200
			SIMULATION NO.46- 2 EXPOSURE LEVEL SETTING (EACH MODE) COPY (PHOTO MODE) 0~200 P_1 [XXX]:XXX P_3.5[XXX]:XXX P_1.5[XXX]:XXX P_4 [XXX]:XXX P_2 [XXX]:XXX P_4.5[XXX]:XXX P_2.5[XXX]:XXX P_5 [XXX]:XXX P_3 [XXX]:XXX [→]KEY:MOVE PRINT SW:EXECUTE [DENSITY]KEY:CHANGE DENSITY MODE [DENSITY] key	PH: 0-200
			SIMULATION NO.46- 2 EXPOSURE LEVEL SETTING (EACH MODE) COPY (SOFT_PHOTO MODE) 0~200 SFTP_1 [XXX]:XXX SFTP_3.5[XXX]:XXX SFTP_1.5[XXX]:XXX SFTP_4 [XXX]:XXX SFTP_2 [XXX]:XXX SFTP_4.5[XXX]:XXX SFTP_2.5[XXX]:XXX SFTP_5 [XXX]:XXX SFTP_3 [XXX]:XXX [→]KEY:MOVE PRINT SW:EXECUTE [DENSITY]KEY:CHANGE DENSITY MODE [Content] The exposure level adjustment value in each copy mode can be set. The current setting is displayed and a new setting can be entered. (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated and the next input field is displayed. If the entered value is not valid, the input field is cleared and the error buzzer sounds. If any value is not entered, the setting is not updated and the screen changes to the sub code input screen. [0-9]: Enters new settings. [→]: Moves the input field. [C]: Clears the input field. [DENSITY]: Switches over copy density modes [PAUSE]: No setting is made and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	SPH: 0-200

Main code	Sub code	Item	Content	Adjustment range
46	03	Inputs exposure level adjustment value (copy).	SIMULATION NO. 46- 3 EXPOSURE LEVEL SETTING (COPY) AUTO AE_3.0 (30~170) [XXX]:XXX MANUAL N_3.0 (30~170) [XXX]:XXX PHOTO P1_3.0 (30~170) [XXX]:XXX SOFT_P SFT_3.0 (30~170) [XXX]:XXX [→]KEY:MOVE PRINT SW:EXECUTE [Content] The exposure level adjustment value in copy mode can be set. The current setting is displayed and a new setting can be entered. * The greater the input value, the darker copy density becomes; the smaller the input value, the lighter copy density becomes. (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated and the next input field is displayed. If the entered value is not valid, the input field is cleared and the error buzzer sounds. If any value is not entered, the setting is not updated and the screen changes to the sub code input screen. [0-9]: Enters new settings. [→]: Moves the input field. [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	AE: 30-170 ME: 30-170 PH: 30-170 SPH: 30-170
	07	Inputs tone adjustment value (copy).	SIMULATION NO. 46- 7 TONE ADJUSTMENT SETTING (COPY) AUTO AE_3.0 (1~20) [XX]:XX MANUAL N_3.0 (1~20) [XX]:XX PHOTO P1_3.0 (1~20) [XX]:XX SOFT_P SFT_3.0 (1~20) [XX]:XX [→]KEY:MOVE PRINT SW:EXECUTE [Content] The exposure level adjustment value in the copy mode can be set. The current setting is displayed and a new setting can be entered. * The greater the input value, the stronger tone becomes; the smaller the input value, the weaker tone becomes. (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated and the next input field is displayed. If the entered value is not valid, the input field is cleared and the error buzzer sounds. If any value is not entered, the setting is not updated and the screen changes to the sub code input screen. [0-9]: Enters new settings. [→]: Moves the input field. [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	AE: 1-20 ME: 1-20 PH: 1-20 SPH: 1-20

Main code	Sub code	Item	Content	Adjustment range
48		Zoom adjustment.	SIMULATION NO. 48- _ 2. ZOOM ADJUSTMENT (PAPER MOVING DIRECTION) INPUT SUB NO. AND PRESS PRINT SWITCH	
	02	Zoom adjustment (scanning direction).	[Content] The copy ratio in the scanning direction can be adjusted. The current copy ratio setting in the scanning direction can be separately changed. A new setting can be entered with the numeric keypad. If the [PRINT] key is pressed after entering a new value, the value is set as a new setting. If the [PRINT] key is pressed without entering any setting, the copier exits the simulation mode and starts warming up. After warming up, the copier becomes the copy ready mode, in which you can make copies. However, multiple copy function is disabled. After making a copy, you can return to the adjustment value input screen by pressing the [PAUSE] key. If a copy is made after changing the setting again, shading/process control are omitted. Adjustment range SKN 0 ~ 20 The copy ratio changes by 0.1% for every "1" level in the adjustment value. SIMULATION NO. 48- 2 ZOOM ADJUSTMENT VALUE SETTING PAPER MOVING DIRECTION [XX]XX (0~20) [→]KEY:MOVE PRINT SW:EXECUTE [PRINT] key WARMING UP. PLEASE WAIT. 3 READY TO COPY MAGNI. ADJUSTMENT SCAN DIR. [XX] 0~20 3 (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated. If the entered value is not valid, the input field is cleared and the error buzzer sounds. If any value is not entered, the copier exits the simulation mode and starts warming up. After warming up, the copier becomes the copy ready state, making it possible to make copies. [0-9]: Enters new settings. (The setting is displayed on the COPIES SELECTED display.) [→]: Moves the input field. [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. When the "READY TO COPY" screen is being displayed, it returns to the adjustment value input screen. To clear the zoom adjustment mode: - Turn ON the [CA] key, or - Turn ON/OFF the main switch (on the left-side of the copier), or - Enter the simulation mode and press the [CA] key to exit the simulation mode.	SKN: 0-20

Main code	Sub code	Item	Content	Adjustment range
50		Adjusts the leading edge position of the copy.	SIMULATION NO.50- _ 1, 2, 5.ADJUST THE COPY LEAD EDGE IMAGE LOSS AND VOID AREAS 3.SET THE COPY LEAD EDGE IMAGE LOSS AND VOID AREAS 10.PRINT OFCENTER ADJUSTMENT 12.ORIGINAL OFCENTER ADJUSTMENT 14.PRINT OFCENTER SETTING 15.ORIGINAL OFCENTER SETTING INPUT_SUB NO. AND PRESS PRINT SWITCH	
	01	Adjusts the leading edge position of the image.	[Content] The leading edge position of the image can be adjusted. If the [PRINT] key is pressed after entering a sub code, the copier exits the simulation mode and starts warming up. After warming up, the copier becomes the copy ready state. At this time, the leading edge position setting of the image is displayed on the multiple display. However, if the warming up action is finished by another sub code, the shading/process control is omitted. The setting can be changed with the numeric keypad. By pressing the [PRINT] key, a copy can be made. You can move from one item to another with the [→] key. The selection between cassette feed and manual feed can be made with the [CASSETTE SELECTION] key. If the [PRINT] key is pressed without entering any setting, a copy can be made. However, the multiple copy function is not available. Adjustment range Leading edge adjustment value RRC-A: 0 ~ 99 Leading edge adjustment value RRC-B: 0 ~ 99 With RRC_A=60, RRC_B=00, make a 400% copy. Call the distance from the leading edge of the image to the 5-mm position on the scale as L1 [mm] and the distance from the leading edge of the paper to the leading edge of the image as L2 [mm]. The adjustment values of RRC_A and RRC_B can be obtained by the following equation. RRC_A= Previous setting + (L1 × 10 – 120) × 100/copy ratio RRC_B= L2 × 10 – 20 Adjustment range Trailing edge void DEN-B: 0 ~ 99 The leading/trailing edge void increases 0.1 mm for every “+1” in adjustment value. The leading/trailing edge void decreases 0.1 mm for every “–1” in adjustment value. WARMING UP . PLEASE WAIT . 60 TRAY ADJUSTMENT RRC_A [XX] 60 RRC_B [XX] DEN_B [XX] 0~99 • [CASSETTE SELECTION] key MFT ADJUSTMENT RRC_B [XX] DEN_B [XX] 0~99 60	RRC-A: 0-99 RRC-B: 0-99 DEN-B: 0-99

Main code	Sub code	Item	Content	Adjustment range
50	01	Adjusts the leading edge position of the image.	(a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated. (The input field remains at the same position.) If the entered value is not valid, the input field is cleared and the error buzzer sounds. If any value is not entered, the copier exits the simulation mode and starts warming up. After warming up, the copier becomes the copy ready state, making it possible to make copies. [0-9]: Enters new settings. (The setting is displayed on the COPIES SELECTED display.) [→]: Moves the input field. [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. To clear the image leading edge position adjustment mode: 1. Turn ON the [CA] key, or 2. Turn ON/OFF the main switch (on the left-side of the copier), or 3. Enter the simulation mode and press the [CA] key to exit the simulation mode, or 4. Press the [PAUSE] key without entering any setting, to change the screen to the sub code input screen.	
	02	Adjusts the leading edge position of the image (calculation formula).	[Content] The leading edge position of the image can be adjusted. 0 If the [PRINT] key is pressed after entering a sub code, the copier exits the simulation mode and starts warming up. After warming up, the copier becomes the copy ready state. At this time, the leading edge setting of the image is displayed on the multiple display. However, if the warming up action is finished by another sub code, the shading/process control is omitted. Make a 400% copy. Call the distance from the leading edge of the image to the 10-mm position on the scale as L1 [mm] and the distance from the leading edge of the paper to the leading edge of the image as L2 [mm]. Measure the displacement at the leading edge in units of 0.1 mm and enter the value with the numeric keypad. If the [PRINT] key is pressed, the leading edge adjustment value is set. The current trailing edge void setting is displayed on the multiple display unit. The setting can be changed with the numeric keypad. If the [PRINT] key is pressed after entering a new setting, copies can be made. However, the multiple copy function is not available. You can move from one item to another with the [→] key. If the SIM50-2 is executed again, the previously entered value is displayed. It is possible to perform the leading edge position adjustment by setting "L1" and "L2" for 0. Input range Displacement in leading edge at 400% L1 [0.1 mm]:*** [mm] 77 ~ 479 Displacement in leading edge at 400% L2 [0.1 mm]:*** [mm] 20 ~ 119 Adjustment range Trailing edge void DEN-B: 0 ~ 99 The leading/trailing edge void increases 0.1 mm for every "+1" in adjustment value. The leading/trailing edge void decreases 0.1 mm for every "-1" in adjustment value.	0-999

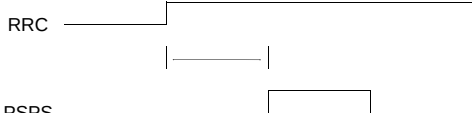
Main code	Sub code	Item	Content	Adjustment range
50	02	Adjusts the leading edge position of the image (calculation formula).	WARMING UP . PLEASE WAIT . 100 READY TO COPY IMAGE POSITION ADJUSTMENT (TRAY) L1 [0.1mm] 100 COPY RATIO 400% [→] key READY TO COPY IMAGE POSITION ADJUSTMENT (TRAY) L2 [0.1mm] 100 COPY RATIO 400% [→] key READY TO COPY IMAGE POSITION ADJUSTMENT (DEN_B) (0~99) 20 Image position adjustment in manual feed mode [TRAY SELECTION] key READY TO COPY IMAGE POSITION ADJUSTMENT (MFT) L2 [0.1mm] 100 COPY RATIO 400% [→] key READY TO COPY IMAGE POSITION ADJUSTMENT (DEN_B) (0~99) 20 To clear the image leading edge position adjustment mode: 1. Turn ON the [CA] key, or 2. Turn ON/OFF the main switch (on the left-side of the copier), or 3. Enter the simulation mode and press the [CA] key to exit the simulation mode, or 4. Press the [PAUSE] key without entering any setting, to change the screen to the sub code input screen.	

Main code	Sub code	Item	Content	Adjustment range																																								
50	03	Inputs leading edge position adjustment value.	SIMULATION NO.50- 3 ADJUST THE COPY LEAD EDGE IMAGE LOSS AND VOID AREAS IMAGE LOSS(0~40) [XX]:XX RRC-A (0~99) [XX]:XX RRC-B (0~99) (CS)[XX]:XX (MFT)[XX]:XX DEN-A (0~99) (CS)[XX]:XX (MFT)[XX]:XX DEN-B (0~99) (CS)[XX]:XX (MFT)[XX]:XX RRC-P (0~99) (CS)[XX]:XX (MFT)[XX]:XX [→]KEY:MOVE PRINT SW:EXECUTE0 [Content] The image leading edge position adjustment value can be set. The current setting is displayed and a new setting can be entered. <table><thead><tr><th></th><th></th><th>Adjustment range</th><th></th></tr></thead><tbody><tr><td>Image loss</td><td>:</td><td>0 ~ 40</td><td>0-40</td></tr><tr><td>Leading edge adjustment value (copy)</td><td>RRC-A:</td><td>0 ~ 99</td><td>RRC-A: 0-99</td></tr><tr><td>Leading edge adjustment value (copy/cassette)</td><td>RRC-B:</td><td>0 ~ 99</td><td>RRC-A: 0-99</td></tr><tr><td>Leading edge adjustment value (copy/manual)</td><td>RRC-B:</td><td>0 ~ 99</td><td>RRC-B: 0-99</td></tr><tr><td>Leading edge void</td><td>DEN-A:</td><td>0 ~ 99</td><td>DEN-A: 0-99</td></tr><tr><td>Trailing edge void (copy/cassette)</td><td>DEN-B:</td><td>0 ~ 99</td><td>DEN-B: 0-99</td></tr><tr><td>Trailing edge void (copy/manual)</td><td>DEN-B:</td><td>0 ~ 99</td><td>DEN-B: 0-99</td></tr><tr><td>Leading edge adjustment value (print/cassette)</td><td>RRC-P:</td><td>0 ~ 99</td><td>RRC-P: 0-99</td></tr><tr><td>Leading edge adjustment value (print/manual)</td><td>RRC-P:</td><td>0 ~ 99</td><td>RRC-P: 0-99</td></tr></tbody></table> (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated and the sub code input screen is displayed. If the entered value is not valid, the input field is cleared and the error buzzer sounds. If any value is not entered, the setting is not updated and the screen changes to the sub code input screen. [0-9]: Enters new settings. [→]: Moves the input field. [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.			Adjustment range		Image loss	:	0 ~ 40	0-40	Leading edge adjustment value (copy)	RRC-A:	0 ~ 99	RRC-A: 0-99	Leading edge adjustment value (copy/cassette)	RRC-B:	0 ~ 99	RRC-A: 0-99	Leading edge adjustment value (copy/manual)	RRC-B:	0 ~ 99	RRC-B: 0-99	Leading edge void	DEN-A:	0 ~ 99	DEN-A: 0-99	Trailing edge void (copy/cassette)	DEN-B:	0 ~ 99	DEN-B: 0-99	Trailing edge void (copy/manual)	DEN-B:	0 ~ 99	DEN-B: 0-99	Leading edge adjustment value (print/cassette)	RRC-P:	0 ~ 99	RRC-P: 0-99	Leading edge adjustment value (print/manual)	RRC-P:	0 ~ 99	RRC-P: 0-99	
		Adjustment range																																										
Image loss	:	0 ~ 40	0-40																																									
Leading edge adjustment value (copy)	RRC-A:	0 ~ 99	RRC-A: 0-99																																									
Leading edge adjustment value (copy/cassette)	RRC-B:	0 ~ 99	RRC-A: 0-99																																									
Leading edge adjustment value (copy/manual)	RRC-B:	0 ~ 99	RRC-B: 0-99																																									
Leading edge void	DEN-A:	0 ~ 99	DEN-A: 0-99																																									
Trailing edge void (copy/cassette)	DEN-B:	0 ~ 99	DEN-B: 0-99																																									
Trailing edge void (copy/manual)	DEN-B:	0 ~ 99	DEN-B: 0-99																																									
Leading edge adjustment value (print/cassette)	RRC-P:	0 ~ 99	RRC-P: 0-99																																									
Leading edge adjustment value (print/manual)	RRC-P:	0 ~ 99	RRC-P: 0-99																																									
50	05	Adjusts the leading edge position of the image (printing by printer).	[Content] The leading edge position of the image can be adjusted. If the [PRINT] key is pressed after entering a sub code, the copier exits the simulation mode and starts warming up. After warming up, the copier becomes the copy ready state. At this time, the current print leading edge setting of the image is displayed in the [XX] area. However, if the warming up action is finished by another sub code, the shading/process control is omitted. The setting can be changed with the numeric keypad. If the [PRINT] key is pressed after entering a new value, the value is set as a new setting. You can move from one item to another with the [→] key and change the settings. The value in an item currently selected is displayed in the [XX] in reverse video. The selection between cassette feed and manual feed can be made with the [CASSETTE SELECTION] key. If the [PRINT] key is pressed without entering any setting, a copy can be made. However, the multiple copy function is not available.	0-99																																								

Main code	Sub code	Item	Content	Adjustment range																				
50	05	Adjusts the leading edge position of the image (printing by printer).	Adjustment range Leading edge adjustment value (print) RRC-P: 0 ~ 99 The image moves 0.1 mm toward the trailing edge for each “+1” in adjustment value. The image moves 0.1 mm toward the leading edge for each “-1” in adjustment value. WARMING UP . PLEASE WAIT . 50 TRAY ADJUSTMENT RRC_P [XX] 0~99 50 • [CASSETTE SELECTION] key MFT ADJUSTMENT RRC_P [XX] 0~99 50 (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated. If the entered value is not valid, the input field is cleared and the error buzzer sounds. If any value is not entered, copies can be made. [0-9]: Enters new settings. (The setting is displayed on the COPIES SELECTED display.) [CASSETTE SELECTION]: Switch over paper feed modes. [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. To clear the image leading edge position adjustment mode: 1. Turn ON the [CA] key, or 2. Turn ON/OFF the main switch (on the left-side of the copier), or 3. Enter the simulation mode and press the [CA] key to exit the simulation mode.																					
50	10	Adjusts print off-center (manual feed, cassette, ADU).	[Content] The print off-center can be adjusted (manual feed, cassette, ADU) If the [PRINT] key is pressed after entering a sub code, the copier exits the simulation mode and starts warming up. After warming up, the copier becomes the copy ready state. At this time, the current print off-center setting is displayed in the [XX] area. However, if the warming up action is finished by another sub code, the shading/process control is omitted. The setting can be changed with the numeric keypad. If the [PRINT] key is pressed after entering a new value, the value is set as a new setting. You can change setting item pages with the [MAGNIFICATION RATIO AUTO SELECT] key, move from one item to another with the [→] key, and change the settings. The paper feed mode currently selected is displayed in the [XX] in reverse video. If the [PRINT] key is pressed without entering any setting, a copy can be made by using a sheet of paper in the paper feed mode currently set in the input field. However, the multiple copy function is not available. Adjustment range <table><tr><td>Print off-center (Copier lower tray)</td><td>OFP_T1:</td><td>0 ~ 99</td><td>OFP_T1: 0-99</td></tr><tr><td>Print off-center (Desk upper tray)</td><td>OFP_T2:</td><td>0 ~ 99</td><td>OFP_T2: 0-99</td></tr><tr><td>Print off-center (Desk lower tray: LCC)</td><td>OFP_T3:</td><td>0 ~ 99</td><td>OFP_T3: 0-99</td></tr><tr><td>Print off-center (Manual feed tray)</td><td>OFP_M:</td><td>0 ~ 99</td><td>OFP_M: 0-99</td></tr><tr><td>Print off-center (ADU)</td><td>OFP_D:</td><td>0 ~ 99</td><td>OFP_D : 0-99</td></tr></table>	Print off-center (Copier lower tray)	OFP_T1:	0 ~ 99	OFP_T1: 0-99	Print off-center (Desk upper tray)	OFP_T2:	0 ~ 99	OFP_T2: 0-99	Print off-center (Desk lower tray: LCC)	OFP_T3:	0 ~ 99	OFP_T3: 0-99	Print off-center (Manual feed tray)	OFP_M:	0 ~ 99	OFP_M: 0-99	Print off-center (ADU)	OFP_D:	0 ~ 99	OFP_D : 0-99	
Print off-center (Copier lower tray)	OFP_T1:	0 ~ 99	OFP_T1: 0-99																					
Print off-center (Desk upper tray)	OFP_T2:	0 ~ 99	OFP_T2: 0-99																					
Print off-center (Desk lower tray: LCC)	OFP_T3:	0 ~ 99	OFP_T3: 0-99																					
Print off-center (Manual feed tray)	OFP_M:	0 ~ 99	OFP_M: 0-99																					
Print off-center (ADU)	OFP_D:	0 ~ 99	OFP_D : 0-99																					

Main code	Sub code	Item	Content	Adjustment range
50	10	Adjusts print off-center (manual feed, cassette, ADU).	The image moves 0.125 mm toward the R side for each "+1" in adjustment value. The image moves 0.125 mm toward the F side for each "-1" in adjustment value. WARMING UP . PLEASE WAIT . 50 TRAY1 OFP_T1 [XX] TRAY2 OFP_T2 [XX] TRAY3 OFP_T3 [XX] (0~99) 50 • [MAGNIFICATION RATIO AUTO SELECT] key MFT OFP_M [XX] ADU OFP_D [XX] (0~99) 50 (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated. (The input field remains at the same position.) If the entered value is not valid, the input field is cleared and the error buzzer sounds. If any value is not entered, paper is fed in the paper feed mode preset in the input field to make a copy. [0-9]: Enters new settings. (The setting is displayed on the COPIES SELECTED display.) [MAGNIFICATION RATIO AUTO SELECT]: Changes pages [→]: Moves the input field. [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. To clear the print off-center adjustment mode: 1. Turn ON the [CA] key, or 2. Turn ON/OFF the main switch (on the left-side of the copier), or 3. Enter the simulation mode and press the [CA] key to exit the simulation mode.	
50	12	Adjusts document off-center (OC, RADF).	[Content] The document off-center can be adjusted (OC, RADF) If the [PRINT] key is pressed after entering a sub code, the copier exits the simulation mode and starts warming up. After warming up, the copier becomes the copy ready state. At this time, the current document off-center setting is displayed in the [XX] area. However, if the warming up action is finished by another sub code, the shading/process control is omitted. The setting can be changed with the numeric keypad. If the [PRINT] key is pressed after entering a new value, the value is set as a new setting. You can move from one item to another with the [→] key, and change the settings. The document off-center adjustment position currently selected is displayed in the [XX] in reverse video. If the [PRINT] key is pressed without entering any setting, a copy can be made. However, the multiple copy function is not available. Adjustment range Document off-center (OC) OF_OC: 10 ~ 90 document off-center (RADF) OF_DF: 10 ~ 90	OF_OC: 10-90 OF_DF: 10-90

Main code	Sub code	Item	Content	Adjustment range
50	12	Adjusts document off-center (OC, RADF).	The image moves 0.125 mm toward the R side for each "+1" in adjustment value. The image moves 0.125 mm toward the F side for each "-1" in adjustment value. WARMING UP . PLEASE WAIT . 39 OC OF_OC [XX] ADF OF_DF [XX] 39 (10~90) (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated. (The input field remains at the same position.) If the entered value is not valid, the input field is cleared and the error buzzer sounds. If any value is not entered, copies can be made. [0-9]: Enters new settings. (The setting is displayed on the COPIES SELECTED display.) [→]: Moves the input field. [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. To clear the document off-center adjustment mode: 1. Turn ON the [CA] key, or 2. Turn ON/OFF the main switch (on the left-side of the copier), or 3. Enter the simulation mode and press the [CA] key to exit the simulation mode.	
50	14	Inputs print off-center adjustment value.	SIMULATION No. 50-14 PRINT OFCENTER SETTING TRAY1 OFP_T1 (0~99)[XX]: XX TRAY2 OFP_T2 (0~99)[XX]: XX TRAY3 OFP_T3 (0~99)[XX]: XX MFT OFP_M (0~99)[XX]: XX ADU OFP_D (0~99)[XX]: XX [→]KEY:MOVE PRINT SW:EXECUTE [Content] The print off-center adjustment value can be set. The current setting is displayed and a new setting can be entered. (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated and the sub code input screen is displayed. If the entered value is not valid, the input field is cleared and the error buzzer sounds. If any value is not entered, the setting is not updated and the screen changes to the sub code input screen. [0-9]: Enters new settings. [→]: Moves the input field. [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	OFP_T1: 0-99 OFP_T2: 0-99 OFP_T3: 0-99 OFP_M: 0-99 OFP_D: 0-99

Main code	Sub code	Item	Content	Adjustment range
50	15	Inputs document off-center adjustment value.	SIMULATION No. 50-15 ORIGINAL OFCENTER SETTING OC OFP_M (10~90)[XX]: XX RADF OFP_C (10~90)[XX]: XX [→]KEY:MOVE PRINT SW:EXECUTE [Content] The document off-center adjustment value can be set. The current setting is displayed and a new setting can be entered. (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated and the sub code input screen is displayed. If the entered value is not valid, the input field is cleared and the error buzzer sounds. If any value is not entered, no setting is made and the screen changes to the sub code input screen. [0-9]: Enters new settings. [→]: Moves the input field. [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	OFP_M: 10-90 OFP_C: 10-90
51		Timing adjustments.	SIMULATION No. 51- _ 1. SEPARATION NAIL TIMING SETUP 2. RESIST ROLLER ADJUSTMENTS INPUT SUB NO. AND PRESS PRINT SWITCH	
	01	Inputs separation nail activation timing adjustment value.	SIMULATION No. 51- 1 SEPARATION NAIL TIMING (20~90) [XX]: XX INPUT SETUP VALUE AND PRESS PRINT SW [Content] The drum's separation nail activation timing adjustment value can be set. The current setting is displayed and a new setting can be entered.  Adjustment range Separation nail timing TPSPS: 20 ~ 99 The timing increases 1 ms for every "+1" in adjustment value and decreases 1 ms for every "-1". (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated and the sub code input screen is displayed. If the entered value is not valid, the input field is cleared and the error buzzer sounds. If any value is not entered, no setting is made and the screen changes to the sub code input screen. [0-9]: Enters new settings. [→]: Moves the input field. [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	TPSPS: 20-99

Main code	Sub code	Item	Content	Adjustment range
51	02	Adjusts resist amount.	[Content] The paper feed resist amount can be adjusted. If the [PRINT] key is pressed after entering a sub code, the copier exits the simulation mode and starts warming up. After warming up, the copier becomes the copy ready state. At this time, the current paper feed resist amount setting is displayed in the multiple display unit. The setting can be changed with the numeric keypad. If the [PRINT] key is pressed after entering a new setting, copies can be made. However, the multiple copy function is not available. Adjustment range Paper feed resist amount (manual feed) TREG_M: 0 ~ 50 Paper feed resist amount (cassette) TREG_C: 0 ~ 50 Paper feed resist amount (ADU) TREG_D: 0 ~ 50 WARMING UP . PLEASE WAIT . 17 READY TO COPY ADJUST TRAY REGIST 17 SET REGIST(MANUAL) TREG_M (0~50) • [→] key READY TO COPY ADJUST TRAY REGIST 11 SET REGIST(TRAY) TREG_C (0~50) • [→] key READY TO COPY ADJUST TRAY REGIST 24 SET REGIST(DUPLEX) TREG_D (0~50) To clear the paper feed resist adjustment mode: 1. Turn ON the [CA] key, or 2. Turn ON/OFF the main switch (on the left-side of the copier), or 3. Enter the simulation mode and press the [CA] key to exit the simulation mode.	TREG_M: 0-50 TREG_C: 0-50 TREG_D: 0-50
52		ADU adjustments.	SIMULATION No.52- _ 1.ADU ALIGNMENT PLATE ADJUST VALUE SETUP 2.ADU REAR PLATE ADJUST VALUE SETUP 3.ADU DRIVE CLUTCH OFF TIME SETUP INPUT SUB NO. AND PRESS PRINT_SWITCH	
	01	Sets ADU alignment plate adjustment value.	SIMULATION No.52- 1 ADU ALIGNMENT PLATE ADJUST VALUE SETUP ADJUST VALUE[XX]:_ (1~99) INPUT SETUP VALUE AND PRESS PRINT SW [Content] The ADU alignment plate stopping position adjustment value can be set. The current setting is displayed and a new setting can be entered.	

Main code	Sub code	Item	Content	Adjustment range
52	01	Sets ADU alignment plate adjustment value.	Adjustment range 1 ~ 99 ADU alignment plate adjustment value : The alignment plate spacing narrows about 0.56 mm for every "+1" in adjustment value. The alignment plate spacing widens about 0.56 mm for every "-1" in adjustment value. (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated and the sub code input screen is displayed. If the entered value is not valid, the input field is cleared and the error buzzer sounds. If any value is not entered, no setting is made and the screen changes to the sub code input screen. [0-9]: Enters new settings. [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	1-99
	02	Sets ADU trailing edge adjustment value.	SIMULATION No. 52- 2 ADU REAR PLATE ADJUST VALUE SETUP ADJUST VALUE[XX] : _ (0~99) INPUT SETUP VALUE AND PRESS PRINT SW [Content] The adjustment value of the ADU trailing edge plate stopping position can be set. The current setting is displayed and a new setting can be entered. Adjustment range 0 ~ 99 ADU trailing edge plate adjustment value: The trailing edge plate spacing decreases 0.4 mm for every "+1" in adjustment value. The trailing edge plate spacing increases 0.4 mm for every "-1" in adjustment value. (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated and the sub code input screen is displayed. If the entered value is not valid, the input field is cleared and the error buzzer sounds. If any value is not entered, no setting is made and the screen changes to the sub code input screen. [0-9]: Enters new settings. [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	0-99
	03	Sets ADU drive clutch OFF time.	SIMULATION No. 52- 3 ADU DRIVE CLUTCH OFF TIME SETUP OFF TIME SETUP[XX] : _ (0~10) INPUT SETUP VALUE AND PRESS PRINT SW [Content] The Adjustment value of the ADU drive clutch OFF time can be set. The current setting is displayed and a new setting can be entered.	0-10

Main code	Sub code	Item	Content	Adjustment range
52	03	Sets ADU drive clutch OFF time.	Adjustment range ADU drive clutch OFF time: 0 ~ 10 The ADU drive clutch OFF time increases 10 ms for every "+1" in adjustment value. (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated and the sub code input screen is displayed. If the entered value is not valid, the input field is cleared and the error buzzer sounds. If any value is not entered, no setting is made and the screen changes to the sub code input screen. [0-9]: Enters new settings. [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
53		RADF adjustment.	SIMULATION No.53- _ 1.RADF STOP POSITION ADJUSTMENT (PLAIN PAPER/ONE SIDE) 2.RADF STOP POSITION ADJUSTMENT (PLAIN PAPER/BOTH SIDE) 5.RADF RESIST SENSOR ADJUSTMENT 6.RADF REPULSION SENSOR ADJUSTMENT 7.RADF TIMING SENSOR ADJUSTMENT INPUT SUB NO. AND PRESS PRINT SWITCH	
	01	Adjusts RADF stopping position (normal paper, face side).	SIMULATION No.53- 1 RADF STOP POSITION ADJUST VALUE SETUP PLAIN PAPER/ONE SIDE[XX]: _ (0~15) INPUT SETUP VALUE AND PRESS PRINT_SW [Content] The adjustment value of the RADF document stopping position can be set. The current setting is displayed and a new setting can be entered. Adjustment range RADF stopping position (normal paper face side): 0 ~ 15 The stopping position increases 1 mm for every 1 marking of adjustment value. (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated and the sub code input screen is displayed. If the entered value is not valid, the input field is cleared and the error buzzer sounds. If any value is not entered, no setting is made and the screen changes to the sub code input screen. [0-9]: Enters new settings. [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	9-15

Main code	Sub code	Item	Content	Adjustment range
53	02	Adjusts RADF stopping position (normal paper, back side).	SIMULATION No.53- 2 RADF STOP POSITION ADJUST VALUE SETUP PLAIN PAPER/BOTH SIDE[XX]: _ (0~15) INPUT SETUP VALUE AND PRESS PRINT SW [Content] The adjustment value of the RADF document stopping position can be set. The current setting is displayed and a new setting can be entered. Adjustment range RADF stopping position (normal paper back side): 0 ~ 15 The stopping position increases 1 mm for every 1 marking of adjustment value. (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated and the sub code input screen is displayed. If the entered value is not valid, the input field is cleared and the error buzzer sounds. If any value is not entered, no setting is made and the screen changes to the sub code input screen. [0-9]: Enters new settings. [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	0-15
	05	Adjusts RADF resist sensor.	SIMULATION No.53- 5 RADF RESIST SENSOR ADJUSTMENT PRINT SWITCH:EXECUTE SIMULATION Resist sensor adjustment completed SIMULATION No.53- 5 RESIST SENSOR ADJUSTMENT HAS COMPLETED ADJUSTMENT VALUE :XXX [PAUSE]KEY:END DISPLAY [Content] The RADF resist sensor can be adjusted. If the [PRINT] key is pressed to execute the simulation, the RADF resist sensor reference value is adjusted and the adjusted value is displayed. Adjustment range RADF: 0 ~ 127 (a) Operation/display [PRINT]: The adjustment simulation is executed. [PAUSE]: The execution of the simulation is stopped and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	0-127

Main code	Sub code	Item	Content	Adjustment range
53	06	Adjusts RADF repulsion sensor.	SIMULATION No.53- 6 RADF REPULSION SENSOR ADJUSTMENT PRINT SWITCH:EXECUTE SIMULATION Eject/inversion sensor adjustment completed SIMULATION No.53- 6 RADF REPULSION SENSOR ADJUSTMENT HAS COMPLETED ADJUSTMENT VALUE:XXX [PAUSE]KEY:END DISPLAY [Content] The RADF repulsion sensor can be adjusted. If the [PRINT] key is pressed to execute the simulation, the RADF repulsion sensor reference value is adjusted and the adjusted value is displayed. Adjustment range RADF: 0 ~ 127 (a) Operation/display [PRINT]: The adjustment simulation is executed. [PAUSE]: The execution of the simulation is stopped and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	0-127
	07	Adjusts RADF timing sensor.	SIMULATION No.53- 7 RADF TIMING SENSOR ADJUSTMENT PRINT SWITCH:EXECUTE SIMULATION Timing sensor adjustment completed SIMULATION No.53- 7 TIMING SENSOR ADJUSTMENT HAS COMPLETED ADJUSTMENT VALUE:XXX [PAUSE]KEY:END DISPLAY [Content] The RADF timing sensor can be adjusted. If the [PRINT] key is pressed to execute the simulation, the RADF timing sensor reference value is adjusted and the adjusted value is displayed. Adjustment range RADF: 0 ~ 127 (a) Operation/display [PRINT]: The adjustment simulation is executed. [PAUSE]: The execution of the simulation is stopped and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	0-127

Main code	Sub code	Item	Content	Adjustment range													
61		Laser output check.	SIMULATION No.61- _ 1.LASER SCANNER UNIT ACTIVATION 2.LASER OUTPUT POWER SETTING INPUT SUB NO. AND PRESS PRINT SWITCH														
	01	Check LSU activation.	SIMULATION No.61- 1 LASER SCANNER UNIT ACTIVATION POLYGON MOTOR : READY BEAM DETECT SENSOR: HSYNC [PAUSE]KEY:END ACTIVATION [Content] The LSU polygon motor is rotated and the laser lights and stays for 30 seconds. At that time, the polygon motor lock detection and laser synchronizing signal are monitored. After the operations, the screen returns to the sub code input screen. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.														
	02	Sets laser power.	SIMULATION No.61- 2 LASER OUTPUT POWER SETTINGON AUTO EXPOSURE MODE[XX]: XX MANUAL EXPOSURE MODE[XX]: XX PHOTOGRAPHIC MODE[XX]: XX SOFT PHOTOGRAPHIC MODE[XX]: XX TONER SAVE MODE[XX]: XX PRINTER MODE[XX]: XX (0~15) [→]KEY:MOVE PRINT SW:EXECUTE [Content] The LSU laser power output can be set. The current setting is displayed and a new setting can be entered. Adjustment range Laser power output value: 0 ~ 15 <table><thead><tr><th>Setting</th><th>Light/output ratio</th></tr></thead><tbody><tr><td>0:</td><td>100.0%</td></tr><tr><td>3:</td><td>87.5%</td></tr><tr><td>6:</td><td>75.0%</td></tr><tr><td>9:</td><td>62.5%</td></tr><tr><td>12:</td><td>50.0%</td></tr><tr><td>15:</td><td>37.5%</td></tr></tbody></table> (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated and the input field changes to the next one. If the entered value is not valid, the input field is cleared and the error buzzer sounds. If any value is not entered, no setting is made and the screen changes to the sub code input screen. [0-9]: Enters new settings. [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	Setting	Light/output ratio	0:	100.0%	3:	87.5%	6:	75.0%	9:	62.5%	12:	50.0%	15:	37.5%
Setting	Light/output ratio																
0:	100.0%																
3:	87.5%																
6:	75.0%																
9:	62.5%																
12:	50.0%																
15:	37.5%																

Main code	Sub code	Item	Content	Adjustment range
63		CCD activation checks.	SIMULATION No.63- _ 1.SHADING CORRECTION DATA CHECK 2.SHADING WHITE BOARD CORRECTION INPUT SUB NO. AND PRESS PRINT SWITCH	
	01	Checks shading.	SIMULATION No.63- 1 SHADING CORRECTION DATA CHECK BLACK (OFFSET) (EVEN/ODD):XXX/XXX BLACK (EVEN/ODD):XXX/XXX WHITE (OFFSET) (EVEN/ODD):XXX/XXX WHITE (EVEN/ODD):XXX/XXX HALF TONE (OFFSET) (EVEN/ODD):XXX/XXX COPY LAMP POWER : XX [PAUSE]KEY:END DISPLAY [Content] The previous shading correction data can be checked. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	02	Sets shading white plate correction value.	SIMULATION No.63- 2 SHADING WHITE BOARD CORRECTION WITH A WHITE PAPER ON THE ORIGINAL TABLE, TURN ON THE PRINT SWITCH. PRINT SWITCH:EXECUTE SIMULATION - Shading white plate correction in progress SIMULATION No.63- 2 SHADING WHITE BOARD CORRECTION CORRECTION VALUE IS SETTING. [PAUSE]KEY:SUSPENDED ACTIVATION - Shading white plate correction completed SIMULATION No.63- 2 SHADING WHITE BOARD CORRECTION CORRECTION HAS COMPLETED. CORRECTION VALUE:XXX [PAUSE]KEY:END DISPLAY [Content] The value which corrects the difference in CCD output level between the shading correction white plate and the actual document is set. If the [PRINT] key is pressed with a sheet of white paper placed on the document table and the document cover closed, the optical unit moves to read the CCD output of the shading correction white plate and the CCD output of the white paper. The copier calculates the correction value from the output levels and stores in memory. (a) Operation/display [PRINT]: The correction value is set. [PAUSE]: The execution of the simulation is stopped and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and simulation is terminated.	

Main code	Sub code	Item	Content	Adjustment range
64		Self-printing.	SIMULATION No.64- _ 1.SELF-PRINTING INPUT SUB NO. AND PRESS PRINT SWITCH	
	01	Self-printing.	* Printing is possible only when the copier is equipped with an optional printer board. [Content] If the [PRINT] key is pressed after entering a sub code, the copier exits the simulation and starts warming up. After warming up, the copier becomes the copy ready state. At this time, if the [PRINT] key is pressed after selecting the self-printing pattern you want to copy, copies can be made in the selected self-printing pattern mode. However, the multiple copy function is not available. READY TO COPY SELF-PRINTING MODE 0 ALL 1by1 HEIGHT COPY RATIO 255% * The self-printing pattern numbers are displayed on the COPIES SELECTED display and the tone on the magnification ratio display. [1] key READY TO COPY SELF-PRINTING MODE 1 ALL 1by2 HEIGHT [C], [2] keys READY TO COPY SELF-PRINTING MODE 2 ALL 1by3 HEIGHT [C], [3] keys READY TO COPY SELF-PRINTING MODE 3 ALL 2by2 HEIGHT (a) Operation/display [PRINT]: Copies can be made in a selected self-printing mode. [0-3]: Selects among the self-printing modes [C]: Clears a selected sub code in the self-printing mode [REDUCTION]: Switches over the tone levels displayed on the magnification ratio display, in the order of 255 → 128 → 64 → 32 → 16 → 0. [ENLARGEMENT]: Switches over the tone levels displayed on the magnification ratio display, in the order of 0 → 16 → 32 → 64 → 128 → 255 [ZOOM]: Increases or decreases the tone level displayed on the magnification ratio display. [MAGNIFICATION AUTO SELECT] Switches over the direction of the paper (longitudinal/vertical) To clear the self-printing copy mode: 1. Turn ON/OFF the main switch (on the left-side of the copier), or 2. Enter the simulation mode and press the [CA] key to exit the simulation mode.	

Main code	Sub code	Item	Content	Adjustment range
67		Printer checks.	SIMULATION No.67- _ PRINTER BOARD SELF-DIAGNOSIS 1.MEMORY R/W 3.CENTRO TIMING 2.CENTRO PORT 11.SELECT-IN SIGNAL FLASH MEMORY SELF-DIAGNOSIS 6.FONT WRITING 12.PROGRAM WRITING 7.FONT VERIFYING 13.PROGRAM VERIFYING 8.FONT W/V 14.PROGRAM W/V 9.AREA TESTING 15.PROGRAM CHECK SUM 10.FONT CHECK SUM INPUT SUB NO. AND PRESS PRINT SWITCH	
	01	DRAM check.	- Checking in progress SIMULATION No.67- 1 PRINTER BOARD MEMORY R/W CHECK DRAM NO. 12345678 DRAM : 0010**** SIMM : CHECKING - Check completed (example) SIMULATION No.67- 1 PRINTER BOARD MEMORY R/W CHECK DRAM NO. 12345678 DRAM : 00100000 SIMM : 0 MB [PAUSE]KEY:END DISPLAY [Content] The read/write of the RAM on the PRT PWB is checked. This check is performed in units of words (4 bytes) of the CPU. First, the RAM on the board is tested. "5555AAAAH" is written in all addresses, and the contents in all the addresses are read in sequence for verification. If there is no error, 0 is displayed; if there is an error, 1 is displayed. Then, the RAM on the SIMM is tested in the same manner as above. If there is no error, the RAM capacity of the SIMM (0 MB/4 MB/8 MB/16 MB) is displayed; if there is any error, NG is displayed. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	

[illegible]

Main code	Sub code	Item	Content	Adjustment range
67	03	Adjusts Centronics port timing.	(a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated and the screen changes to the sub code input screen. If the entered value is not valid, the input field is cleared and the error buzzer sounds. If any value is not entered, no setting is made and the screen changes to the sub code input screen. [0-9]: Enters new settings. [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	06	Writes flash font.	- Initial screen SIMULATION No.67- 6 PRINTER FLASH MEMORY FONT DATA WRITING CHECK PLEASE SEND FONT DATA FROM PERSONAL COMPUTER. - Font data being received SIMULATION No.67- 6 PRINTER FLASH MEMORY FONT DATA WRITING CHECK WRITING IN PROGRESS - Font write completed (Example) SIMULATION No.67- 6 PRINTER FLASH MEMORY FONT DATA WRITING CHECK FONT DATA WRITING HAS COMPLETED (1,234,567 BYTE) [PAUSE]KEY:END DISPLAY [Content] The contents in the FLASH memory on the PRT board is erased. When the reception of font data is started, the "font-data-being-received" screen appears. Font data sent from a personal computer is written in the FLASH memory. After writing, the "font-data-write-completed" screen appears. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	

Main code	Sub code	Item	Content	Adjustment range
67	07	Compares and checks flash font.	- Initial screen SIMULATION No.67- 7 PRINTER FLASH MEMORY FONT DATA VERIFYING CHECK PLEASE SEND FONT DATA FROM PERSONAL COMPUTER. - Font data being received SIMULATION No.67- 7 PRINTER FLASH MEMORY FONT DATA VERIFYING CHECK VERIFYING IN PROGRESS - Font comparison completed (Example) SIMULATION No.67- 7 PRINTER FLASH MEMORY FONT DATA VERIFYING CHECK FONT DATA VERIFYING OK (1,234,567 BYTE) [PAUSE]KEY:END DISPLAY [Content] Font data sent from the personal computer and the contents in the FLASH memory are compared. If all are the same, OK is displayed; if there is any one difference between both, NG is displayed. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	08	Writes/compares and checks flash font.	- Initial screen SIMULATION No.67- 8 PRINTER FLASH MEMORY FONT DATA WRITING/VERIFYING CHECK PLEASE SEND FONT DATA FROM PERSONAL COMPUTER. - Font data being received SIMULATION No.67- 8 PRINTER FLASH MEMORY FONT DATA WRITING/VERIFYING CHECK WRITING/VERIFYING IN PROGRESS	

Main code	Sub code	Item	Content	Adjustment range
67	08	Writes/compares and checks flash font.	Write/comparison check completed (Example) SIMULATION No.67- 8 PRINTER FLASH MEMORY FONT DATA WRITING/VERIFYING CHECK FONT DATA WRITING/VERIFYING OK (1,234,567 BYTE) [PAUSE]KEY:END DISPLAY [Content] The contents in the FLASH memory on the PRT board are erased. Then, the font data sent from the personal computer is written in the FLASH memory and read for comparison. If all are the same, OK is displayed; if there is any one difference between both, NG is displayed. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	09	Flash test.	- Test in progress SIMULATION No.67- 9 PRINTER FLASH MEMORY CHECK CHECKING IN PROGRESS - Test completed (Example) SIMULATION No.67- 9 PRINTER FLASH MEMORY CHECK PRINTER FLASH MEMORY CHECK OK [PAUSE]KEY:END DISPLAY [Content] The contents in the FLASH memory are erased. This test is performed in units of words (4 bytes) of the CPU. Then, "5555AAAAH" is written in all addresses. The contents in all the addresses are read in sequence for verification. The contents in the FLASH memory on the PRT board are erased. Then, "AAAA5555H" is written in all addresses, and the contents in all the addresses are read in sequence for verification. If there is no error, OK is displayed; if there is any error, NG is displayed. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	

Main code	Sub code	Item	Content	Adjustment range
67	10	Flash font sum check.	- Checking in progress SIMULATION No.67-10 PRINTER FLASH MEMORY FONT DATA SUM CHECK CHECKING IN PROGRESS - Checking completed (Example) SIMULATION No.67-10 PRINTER FLASH MEMORY FONT DATA SUM CHECK FONT DATA SUM CHECK OK [PAUSE]KEY:END DISPLAY [Content] The contents in the FLASH memory are read and checked with a check-sum. If there is no error, OK is displayed; if there is any error, NG is displayed. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	11	Sets select In signal.	SIMULATION No.67-11 SELECT-IN SIGNAL SETTING[X]:_ 0. ON 1. OFF INPUT SETUP VALUE AND PRESS PRINT SW [Content] The communication between the PC and the copier is set. (If one of the Centronics cable is not connected to the PC, this setting should be changed. However, some PCs may judge that the cable is not connected after changing this setting.) (a) Operation/display [PRINT]: If the entered value is valid, the current setting is updated and the screen changes to the sub code input screen. If the entered value is not valid, the input field is cleared and the error buzzer sounds. If any value is not entered, no setting is made and the screen changes to the sub code input screen. [0-1]: Enters new settings. [C]: Clears the input field. [PAUSE]: No setting is made and the sub code input screen is displayed. [CA]: The execution of the simulation is stopped and the simulation is terminated.	
	12	Flash program writing.	Initial screen SIMULATION No.67-12 PRINTER FLASH MEMORY PROGRAM DATA WRITING CHECK PLEASE SEND PROGRAM DATA FROM PERSONAL COMPUTER.	

Main code	Sub code	Item	Content	Adjustment range
67	12	Flash program writing.	- During program data reception SIMULATION No. 67-12 PRINTER FLASH MEMORY PROGRAM DATA WRITING CHECK WRITING IN PROGRESS - When the program data writing is completed (example) SIMULATION No. 67-12 PRINTER FLASH MEMORY PROGRAM DATA WRITING CHECK PROGRAM DATA WRITING HAS COMPLETED (1,234,567 BYTE) [PAUSE]KEY:END DISPLAY [Content] The content of the flash of the PRT PWB is deleted. When data reception is started, the screen of data reception is displayed. The program data sent from PC is written into the flash. After completion of writing, the display of completion is displayed. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution is stopped and the simulation is terminated.	
	13	Flash program data comparison check.	- Initial screen SIMULATION No. 67-13 PRINTER FLASH MEMORY PROGRAM DATA VERIFYING CHECK PLEASE SEND PROGRAM DATA FROM PERSONAL COMPUTER. - During program data reception SIMULATION No. 67-13 PRINTER FLASH MEMORY PROGRAM DATA VERIFYING CHECK VERIFYING IN PROGRESS - When the program data comparison is completed (example) SIMULATION No. 67-13 PRINTER FLASH MEMORY PROGRAM DATA VERIFYING CHECK PROGRAM DATA VERIFYING OK (1,234,567 BYTE) [PAUSE]KEY:END DISPLAY [Content] The program data sent from PC and the flash content are compared. If all are the same, "OK" is displayed. If not, "NG" is displayed. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution is stopped and the simulation is terminated.	

Main code	Sub code	Item	Content	Adjustment range
67	14	Flash program data write/comparison check.	- Initial screen SIMULATION No.67-14 PRINTER FLASH MEMORY PROGRAM DATA WRITING/VERIFYING CHECK PLEASE SEND FONT DATA PROGRAM PERSONAL COMPUTER. - During program data reception SIMULATION No.67-14 PRINTER FLASH MEMORY PROGRAM DATA WRITING/VERIFYING CHECK WRITING/VERIFYING IN PROGRESS - When the program data write/comparison is completed (example) SIMULATION No.67-14 PRINTER FLASH MEMORY PROGRAM DATA WRITING/VERIFYING CHECK PROGRAM DATA WRITING/VERIFYING OK (1,234,567 BYTE) [PAUSE]KEY:END DISPLAY [Content] The content of the flash of the PRT PWB is deleted. Then the program data sent from PC is written into the flash and read and compared. If all are the same, "OK" is displayed. If not, "NG" is displayed. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution is stopped and the simulation is terminated.	
	15	Flash program data sum check.	- During checking SIMULATION No.67-15 PRINTER FLASH MEMORY PROGRAM DATA SUM CHECK CHECKING IN PROGRESS - When checking is completed (example) SIMULATION No.67-15 PRINTER FLASH MEMORY PROGRAM DATA SUM CHECK PROGRAM DATA SUM CHECK OK (1,234,567 BYTE) [PAUSE]KEY:END DISPLAY [Content] The flash content is read and check with check sum. If there is no abnormality, "OK" is displayed. If there is any abnormality, "NG" is displayed. (a) Operation/display [PAUSE]: The execution of the simulation is stopped and the screen returns to the sub code input screen. [CA]: The execution is stopped and the simulation is terminated.	

9. SELF-DIAGNOSTICS

- Trouble codes are displayed on the multiple display area on the copy screen. If the [PRINT] key is pressed with a trouble code displayed, the corresponding sub code is displayed.
- Trouble codes and sub codes are displayed on the message area on the printer screen.

Trouble code		Description	
Main code	Sub code		
C1	00	Content	MC trouble
		Detail	Main charger output error (output released) Trouble signal from high-voltage transformer
		Cause	Main charger improperly installed Main charger improperly assembled High-voltage transformer connector removed High-voltage harness removed or wire broken
		Check and remedy	Check main charger output with SIM8-2. Check main charger connector for disconnection. Replace high-voltage unit.
C2	00	Content	TC trouble
		Detail	Transfer charger output error (output short-circuiting) Trouble signal from high-voltage transformer
		Cause	Transfer charger contaminated with foreign matter Transfer charger wire broken High-voltage transformer connector disconnected
		Check and remedy	Check transfer charger output with SIM8-6. Replace high-voltage unit.
E7	02	Content	Laser trouble
		Detail	BD signal from LSU kept at OFF or ON
		Cause	Connector to LSU or harness inside LSU disconnected or wire broken Polygon motor improperly rotating Laser home position sensor improperly positioned inside LSU Laser power supply line does not have proper voltage Laser LED improperly lighting ICU PWB error
		Check and remedy	Check LSU connector for disconnection. Check LSU operation with SIM61-1. Check polygon motor for rotation. Check laser LED for lighting. Replace LSU unit. Replace ICU PWB.
E7	10	Content	Shading trouble (black correction)
		Detail	Improper CCD black reading level for copy lamp going out
		Cause	Improper installation of flat cable to CCD unit CCD unit error ICU PWB error
		Check and remedy	Check flat cable to CCD unit for installation. Check CCD unit. Check ICU PWB.

Trouble code		Description	
Main code	Sub code		
E7	11	Content	Shading trouble (white correction)
		Detail	Improper CCD white reference plate reading level for copy lamp lighting
		Cause	Improper installation of flat cable to CCD unit Mirror, lens or reference white plate contaminated Copy lamp operation error Improperly installed CCD unit CCD unit error ICD PWB error
		Check and remedy	Clean mirror, lens, or reference white plate. Check copy lamp for light amount (SIM5-3) and lighting. Check CCD unit. Check ICU PWB.
E7	12	Content	Shading trouble (intermediate tone correction)
		Detail	Improper CCD white reference late reading level for copy lamp dark lighting
		Cause	Improper installation of flat cable to CCD unit Mirror, lens, or reference white plate contaminated Copy lamp operation error Improperly installed CCD unit CCD unit error ICU PWB error
		Check and remedy	Clean mirror, lens, or reference white plate. Check copy lamp for light amount (SIM5-3, "11") and lighting Check CCD unit Check ICU PWB
E7	13	Content	CCD light amount check error
		Detail	Copy lamp light amount adjustment in shading cannot be made
		Cause	Copy lamp does not light (broken wire, improper installation) Copy lamp light amount is more than "46" of SIM5-3. Improper installation of flat cable to CCD unit Improper connection of copy lamp CL lead wire Mirror, lens, or reference white plate Dirt or dew Improper output of copy lamp power supply Improper installation of CCD unit CCD unit error ICU PWB error
		Check and remedy	Clean mirror, lens, reference white plate. Check copy lamp for light amount (SIM5-5) and lighting. Check CCD unit. Check ICU PWB.

Trouble code		Description	
Main code	Sub code		
F1	00	Content	Sorter communication trouble
		Detail	Communication line test error occurs when power is turned on or after the exit of a simulation mode. Improper communication with sorter
		Cause	Improper connection or broken wire of connector or harness between copier and sorter Sorter control PWB defective Control PWB (PCU) defective Malfunction due to noise
		Check and remedy	Clear by turning the power supply OFF/ON. Check communication line connector and harness. Replace sorter control PWB or PCU PWB.
F1	02	Content	Sorter transport motor error
		Detail	Transport motor drive trouble
		Cause	Motor lock
		Check and remedy	Check transport motor operation with SIM3-3.
F1	03	Content	Sorter guide bar rocking motor trouble
		Detail	Sorter guide bar rocking motor drive error
		Cause	Motor lock Motor speed error Overcurrent to motor Sorter control PWB defective
		Check and remedy	Check guide bar motor operation with SIM3-10.
F1	04	Content	Sorter indexer lower limit detected
		Detail	Indexer has exceeded lower limit.
		Cause	Sensor defective Sorter control PWB defective
		Check and remedy	Check sensor with SIM3-2.
F1	05	Content	Sorter indexer upper limit detected
		Detail	Indexer has exceeded upper limit
		Cause	Sensor defective Sorter control PWB defective
		Check and remedy	Check sensor with SIM3-2.
F1	06	Content	Sorter bin shift motor error
		Detail	1) Bin shift is not completed within 2.5 seconds after bin shift request
		Cause	Motor lock Improper motor speed Overcurrent to motor Sorter control PWB defective
		Check and remedy	Check bin shift motor operation with SIM3-4.

Trouble code		Description	
Main code	Sub code		
F1	08	Content	Sorter staple shift motor trouble
		Detail	Staple motor drive trouble
		Cause	Motor lock Motor speed error Overcurrent to motor Sorter control PWB defective
		Check and remedy	Check staple motor operation with SIM3-8.
F2	02	Content	Toner motor connector disconnected
		Detail	Connection detection signal with toner motor is OFF
		Cause	Connector harness defective Connector disconnected
		Check and remedy	Check toner motor connector for connection. Check connector harness to main PWB for connection. Check harness for broken wire.
F2	31	Content	Process control trouble (OPC base surface reflection factor is improper)
		Detail	Usually the sensor gain is adjusted so that the output is a certain value, by reading the drum base surface with the image density sensor before starting process control. However, a certain output is not obtained by adjusting the sensor gain.
		Cause	Image density sensor defective
		Check and remedy	Check process control sensor output with SIM44-03. (Do not adjust) If the result is far different from the specified value, it suggests the sensor is defective. Check the sensor and harness. If the deviation is relatively small, check the sensor and drum surface for contamination.
F2	32	Content	Process control trouble (drum marking sensor defective)
		Detail	Usually the sensor gain is adjusted so that the output is a certain value, by reading the drum base surface with the drum marking sensor before starting process control. However, a certain output is not obtained by adjusting the sensor gain.
		Cause	Drum marking sensor defective Improper connection of harness between PCU PWB and drum marking sensor Drum marking sensor contaminated OPC drum cleaning improper Charging voltage improper
		Check and remedy	Check process control output with SIM44-02. (Do not adjust.) If the result is far different from the specified value, it suggests the sensor is defective. Check the sensor and harness. If the deviation is relatively small, check the sensor and drum surface for contamination.

Trouble code		Description	
Main code	Sub code		
F3	12	Content	Upper cassette lift-up trouble
		Detail	UPED does not turn on within the specified time. ULUD does not turn on within the specified time.
		Cause	UPED or ULUD defective Upper cassette lift-up motor defective Improper connection of harness between PCU PWB, lift-up unit, and paper feed unit.
		Check and remedy	Check UPED, ULUD and their harness and connector. Check lift-up unit.
F3	22	Content	Lower cassette lift-up trouble
		Detail	LPED does not turn on within the specified time. LLUD does not turn on within the specified time.
		Cause	LPED or LLUD defective Lower cassette lift-up motor defective Improper connection of harness between PCU PWB, lift-up unit, and paper feed unit.
		Check and remedy	Check LPED, LLUD, their harnesses and connectors. Check lift-up unit.
F5	00	Content	Copy lamp lighting error
		Detail	Copy lamp does not light despite the output of lighting signal. Copy lamp lights without the output of lighting signal.
		Cause	DC power supply defective Control PWB defective Copy lamp defective Improper connection of harness between PCU PWB, DC power supply unit and copy lamp unit
		Check and remedy	Check copy lamp for lighting with SIM5-3. Check harnesses and connectors between PCU PWB, DC power supply and copy lamp unit
H2	00	Content	Thermister open Fusing unit not installed
		Detail	Thermister is open (more than 4.6-V input voltage is detected). Fusing unit not installed
		Cause	Thermister defective Control PWB defective Improper connection of fusing connector AC power supply defective Fusing unit not installed
		Check and remedy	Check harness and connector between thermister and control PWB. Clear the display of self-diagnostics with SIM14.

Trouble code		Description	
Main code	Sub code		
H3	00	Content	Too hot fusing section
		Detail	The fusing temperature is over 241.5#C (less than 1.3-V input voltage is detected.)
		Cause	Thermister defective Control PWB defective Improper connection of fusing unit connector AC power supply defective
		Check and remedy	Check heater lamp operation with SIM5-2. If lamp blinks properly: Check thermister and its harness. Check thermister input circuit of control PWB. If lamp lights and stays lit: Check lamp control circuits of AC PWB and control PWB. Clear the trouble with SIM14.
H4	00	Content	Too cold fusing section
		Detail	The temperature does not reach the preset value within the specified time (3 min. in usual modes; 5 min. in curl correction mode.) after the power relay is turned on.
		Cause	Thermister defective Heater lamp defective Control PWB defective Thermostat defective AC power supply defective Interlock switch defective
		Check and remedy	Check heater lamp for blinking with SIM5-2. If lamp blinks properly: Check thermister and its harness. Check thermister input circuit of control PWB. If lamp does not light: Check heater lamp for broken wire and thermostat for operation. Check interlock switch. Check lamp control circuit of AC PWB and control PWB. Clear the trouble with SIM14.
L1	00	Content	Scanner field trouble No TRC or RRC output trouble
		Detail	Scanner field is not finished within 10 seconds. TRC or RRC output is not produced within 5 seconds after the start of scanner field.
		Cause	Mirror unit defective Scanner wire disconnected
		Check and remedy	Check scanning operation with SIM1-1.
L3	00	Content	Scanner return trouble
		Detail	Scanner return is not finished within 3.5 seconds.
		Cause	Mirror unit defective Scanner wire disconnected
		Check and remedy	Check scanning operation with SIM1-1.

Trouble code		Description	
Main code	Sub code		
L4	01	Content	Main motor lock detected
		Detail	Motor lock signal is detected for 1.5 seconds during main motor rotation
		Cause	Main motor defective Improper connection of harness between PCU PWB and main motor Control circuit defective
		Check and remedy	Check main motor operation with SIM25-1. Check harness and connector between PCU PWB and main motor.
L4	02	Content	Drum motor lock detected
		Detail	Motor lock signal is detected for 1.5 seconds during drum motor rotation.
		Cause	Drum motor defective Improper connection of harness between PCU PWB and drum motor Control circuit defective
		Check and remedy	Check drum motor operation with SIM25-1. Check harness and connector between PCU PWB and drum motor.
L6	10	Content	Polygon motor lock detected
		Detail	It was judged that there is no output of polygon motor lock signal of LSU. The lock signal was checked at about 10-second intervals after the polygon motor started rotating. As result, it was judged that the polygon motor failed to operate normally.
		Cause	Disconnected connector to LSU or detached harness inside LSU or broken wire. Polygon motor defective
		Check and remedy	Check polygon motor operation with SIM61-1. Check harness and connector for connection. Replace LSU if needed.
U3	00	Content	Mirror motor PWB communication trouble
		Detail	Communication with mirror motor PWB cannot be established.
		Cause	Mirror motor PWB defective Defective harness or connector between PCU and mirror motor PWB Erroneous detection due to noise
		Check and remedy	Check harness and connector of communication line. Replace mirror motor. Clear the trouble by turning power supply On/Off.
U3	20	Content	Mirror motor RE error
		Detail	No generation of RE signal for a certain time despite the activation of mirror motor.
		Cause	Mirror motor defective RE defective Mirror motor locked
		Check and remedy	Check mirror motor operation with SIM1-1. Check RE signal with SIM1-2.

Trouble code		Description	
Main code	Sub code		
U3	21	Content	Mirror motor MHPS detection error
		Detail	No MHPS is not detected when mirror field is started. MHPS is detected when mirror field is started.
		Cause	MHPS defective MHPS harness or connector defective
		Check and remedy	Check MHPS signal with SIM1-2.
U3	26	Content	Mirror motor power supply error
		Detail	Mirror motor power supply voltage judged to be improper when mirror initial or mirror field is started.
		Cause	Mirror motor PWB defective Mirror motor power supply circuit defective DC power supply defective Improper connection of harness for supplying mirror motor DC38V
		Check and remedy	Check mirror motor power supply with SIM1-2. Check harness and connection for supplying mirror motor DC38V.
U4	02	Content	ADU alignment plate operation error
		Detail	The plate won't move from home position more than 1 second after sending the command to leave home position. Or the plate won't return to home position within 5 seconds after sending the command to return to home position.
		Cause	Home position sensor defective Alignment shift motor defective Improper connection of harness between PCU PWB, motor and sensor. Control PWB (PCU) defective Alignment plate driving belt or gear damaged or improperly adjusted
		Check and remedy	Check home position sensor detection with SIM9-2. Check alignment plate operation with SIM9-4. Check connection between PCU, motor and sensor. Remove ADU and check gear and belt for damage.
U4	03	Content	ADU trailing edge plate operation error
		Detail	The plate won't move from home position more than 1 second after sending the command to leave home position. Or the plate won't return to home position within 5 seconds after sending the command to return to home position.
		Cause	Home position sensor defective Trailing edge plate shift motor defective Control PWB (PCU) defective Trailing edge plate driving belt or gear damaged or improperly adjusted.
		Check and remedy	Check home position sensor with SIM9-2. Check trailing edge plate operation with SIM9-3. Check connection between PCU PWB, motor, and sensor. Remove ADU and check gear and belt for damage.

Trouble code		Description	
Main code	Sub code		
U5	00	Content	RADF communication trouble
		Detail	Communication line test error occurs when power is turned on or after the exit of a simulation mode. Improper communication with RADF
		Cause	Improper connection or broken wire of connector or harness RADF control PWB defective Control PWB (PCU) defective Malfunction due to noise
		Check and remedy	Check communication line connector and harness. Clear the trouble by turning power supply On/Off.
U5	01	Content	RADF resist sensor defective
		Detail	RADF resist sensor detection trouble
		Cause	Sensor defective Improper connection of sensor harness inside RADF. RADF control PWB defective
		Check and remedy	Check resist sensor detection with SIM2-2. Check sensor harness inside RADF.
U5	02	Content	RADF eject/inversion sensor defective
		Detail	RADF eject/inversion sensor detection trouble
		Cause	Defective sensor Improper connection of sensor harness inside RADF. RADF control PWB defective
		Check and remedy	Check eject/inversion sensor detection with SIM2-2. Check sensor harness inside RADF.
U5	03	Content	RADF timing sensor defective
		Detail	RADF timing sensor detection trouble
		Cause	Defective sensor Improper connection of sensor harness inside RADF RADF control PWB defective
		Check and remedy	Check timing sensor detection with SIM2-2. Check sensor harness inside RADF.
U5	11	Content	Paper feed motor operation error
		Detail	Paper feed motor driving error
		Cause	Motor lock Improper motor speed Overcurrent to motor RADF control PWB defective
		Check and remedy	Check paper feed motor operation with SIM2-3,4.
U5	12	Content	RADF transport motor operation error
		Detail	RADF transport motor driving error
		Cause	Motor lock Improper motor speed Overcurrent to motor RADF control PWB defective
		Check and remedy	Check paper feed motor operation with SIM2-5,6.

Trouble code		Description	
Main code	Sub code		
U6	00	Content	Desk communication trouble
		Detail	Failed communication with desk Communication line test error occurs when power is turned on or after the exit of a simulation mode.
		Cause	Improper connection or broken wire of connector or harness Desk control PWB defective Control PWB (PCU) defective Malfunction due to noise.
		Check and remedy	Clear the trouble by turning the power supply On/Off. Check communication line connector and harness.
U6	01 ~ 03	Content	Desk 1, 2 and 3 CS lift-up trouble
		Detail	Desk cassette lift-up trouble (1st - 3rd cassettes).
		Cause	Defective sensor RADF control PWB defective Broken gear Lift-up motor defective
		Check and remedy	Check lift-up sensor detection with SIM4-2.
U6	08	Content	Desk 24-V power supply error
		Detail	No supply of DC24V to desk
		Cause	Improper connection or broken wire of connector or harness Desk control PWB defective Power supply unit defective
		Check and remedy	Check power supply line connector and harness. Check 24-V voltage on power supply unit and desk control PWB.
U6	10	Content	Desk transport motor trouble
		Detail	Desk transport motor operation trouble
		Cause	Motor lock Improper motor speed Overcurrent to motor RADF control PWB defective
		Check and remedy	Check transport motor operation with SIM4-6.
CC		Content	Improper adjustment of document detection
		Detail	Document detection sensor trouble
		Cause	When SIM1-2 is executed, the sensor's light receiving level for each document size does not agree with the setting.
		Check and remedy	Clear the trouble by turning the power supply On/Off. Check document detection lighting section height.

Trouble code		Description	
Main code	Sub code		
EE	EL	Content	Auto developing tone adjustment trouble (overtoner error)
		Detail	A sample data is less than 0 when auto developing adjustment is executed.
		Cause	Toner density sensor defective Charging voltage or developing voltage improper. Toner density improper Developing unit defective PCU PWB defective
		Check and remedy	Make auto developing adjustment with SIM25-2.
EE	EU	Content	Auto developing adjustment trouble (undertoner error)
		Detail	A sample data is less than 99 when auto developing adjustment is executed.
		Cause	Toner density sensor defective Charging voltage or developing voltage improper Toner density improper Unit defective PCU PWB defective
		Check and remedy	Make auto developing adjustment with SIM25-2.
U0 U9 E7 F9	82 83 84	Content	U0-**: communication trouble between MAIN and SUB (MAIN detection) U9-**: communication trouble between MAIN and OPE (MAIN detection) E7-**: communication trouble between MAIN and ICU (MAIN detection) F9-**: communication trouble between MAIN and PRT (MAIN detection)
		Detail	The slave unit does not turn On/Off the DSR_XXX signal line as specified, when establishing communications. (XXX is a slave unit signal name.)
		Cause	Improper connection of slave unit PWB connector Defective harness between slave unit PWB and Main PWB Broken connector pin of slave unit PWB mother board Slave unit ROM is defective/missing/in reverse/broken leg
		Check and remedy	Check the connection of connector and harness between slave unit PWB and Main PWB. Check slave unit PWB ROM.

Trouble code		Description	
Main code	Sub code		
U0 U9 E7 F9	85 86 8L	Content	U0-**: communication trouble between MAIN and SUB (MAIN detection) U9-**: communication trouble between MAIN and OPE (MAIN detection) E7-**: communication trouble between MAIN and ICU (MAIN detection) F9-**: communication trouble between MAIN and PRT (MAIN detection)
		Detail	Framing error/parity error occurred on the RXD_XXX signal line. (XXX is a slave unit signal name.)
		Cause	Improper connection of slave unit PWB connector Defective harness between slave unit PWB and main PWB Noise occurred on RXD_XXX signal line
		Check and remedy	Check the connection of connector and harness between slave unit PWB and main PWB. Check the copier for grounding Check for noise around the copier.
U0 U9 E7 F9	87 88 89 8H 8C 8U 8F	Content	U0-**: communication trouble between MAIN and SUB (MAIN detection) U9-**: communication trouble between MAIN and OPE (MAIN detection) E7-**: communication trouble between MAIN and ICU (MAIN detection) F9-**: communication trouble between MAIN and PRT (MAIN detection)
		Detail	A protocol error occurred between main and slave units (XX-87/89 means that data from slave unit could not be processed within specified time) (XX-88 means that slave unit does not respond within specified time.) (XX-8H means that slave unit does not send ROM version within specified time.)
		Cause	Software bug
		Check and remedy	Check reproducibility
U0 U9 E7 F9	90 91	Content	U0-**: communication trouble between MAIN and SUB (SUB detection) U9-**: communication trouble between MAIN and OPE (OPE detection) E7-**: communication trouble between MAIN and ICU (ICU detection) F9-**: communication trouble between MAIN and PRT (PRT detection)
		Detail	The main unit does not turn On/Off DTR_XXX signal line as specified, when establishing communication. (XXX is a slave unit signal name.)
		Cause	Improper connection of slave unit PWB connector Defective harness between slave unit PWB and main PWB Broken connector pin on mother board of slave unit PWB
		Check and remedy	Check the connection of connector and harness between slave unit PWB and main PWB.

Trouble code		Description	
Main code	Sub code		
U0 U9 E7 F9	95 96 9L	Content	U0-**: communication trouble between MAIN and SUB (SUB detection) U9-**: communication trouble between MAIN and OPE (OPE detection) E7-**: communication trouble between MAIN and ICU (ICU detection) F9-**: communication trouble between MAIN and PRT (PRT detection)
		Detail	Framing error/parity error occurred on TXD_XXX signal line. (XXX is a slave unit signal name.)
		Cause	Improper connection of slave unit PWB connector Defective harness between slave unit PWB and main PWB Noise occurred on TXD_XXX signal line.
		Check and remedy	Check the connection of connector and harness between slave unit PWB and main PWB. Check the copier for grounding. Check for noise around the copier.
U0 U9 E7 F9	97 98 99 9U 9F	Content	U0-**: communication trouble between MAIN and SUB (SUB detection) U9-**: communication trouble between MAIN and OPE (OPE detection) E7-**: communication trouble between MAIN and ICU (ICU detection) F9-**: communication trouble between MAIN and PRT (PRT detection)
		Detail	A protocol error occurred between main and slave units. (XX-97/99 means that data from main unit could not be processed within specified time) (XX-98 means that main unit does not respond within specified time.) (XX-9U means that DSR_XXX signal line is kept OFF more than specified time after establishing communication.)
		Cause	Software bug
		Check and remedy	Check reproducibility.
When OPE judges as a main unit trouble, the message "communication trouble between OPE and main unit (****)" appears on LCD.			
F9	01	Content	PRT DRAM trouble
		Detail	DRAM trouble inside optional printer board (checked when power is turned ON).
		Cause	Not possible to access because DRAM module is broken. DRAM module improperly installed
		Check and remedy	Check with SIM67-1.

Trouble code		Description	
Main code	Sub code		
U2	00	Content	EEPROM read/write error
		Detail	EEPRO version error. Error in writing into EEPROM.
		Cause	EEPROM defective Uninitialized EEPROM is installed Defective EEPROM access circuit on PCU PWB
		Check and remedy	Check EEPROM for proper set-up To prevent the erasion of counter data and adjustment values, write down the counter data and adjustment values by simulation. (If there is a printer option, execute SIM23-1 and note counter data/adjustment values.) Clear U2 trouble with SIM16. Replace PCU PWB.
U2	11	Content	Counter checksum error
		Detail	Checksum error in counter data area
		Cause	EEPROM defective Control circuit hung up due to noise Defective EEPROM access circuit on PCU PWB
		Check and remedy	Check EEPROM for proper set-up To prevent the erasion of counter data and adjustment values, write down the counter data and adjustment values by simulation. (If there is a printer option, execute SIM23-1 and note counter data/adjustment values.) Clear U2 trouble with SIM16. Replace PCU PWB.
U2	12	Content	Adjustment value checksum error
		Detail	Checksum error in adjustment value data area
		Cause	EEPROM defective Control circuit hung up due to noise. Defective EEPROM access circuit on PCU PWB
		Check and remedy	Check EEPROM for proper set-up To prevent the erasion of counter data and adjustment values, write down the counter data and adjustment values by simulation. (If there is a printer option, execute SIM23-1 and note counter data/adjustment values.) Clear U2 trouble with SIM16. Replace PCU PWB.

10. KEY OPERATOR PROGRAM

(1) Procedure for registering key operator code

The key operator code is factory set for "00000". The key operator needs to register his or her key operator code (number) arbitrarily, because the key operator program can be made only with the key operator code.

(Only one key operator code can be registered.)

Registration

① Press the keys in the following manner:

- The screen appears like this:

```
ENTER KEY OPERATOR CODE      -----
```

② With the copy count setting key, enter the factory-set key operator code (5 digits) or the key operator code (5 digits) registered (if any).

- Every time you enter a number, a hyphen (-) changes to an asterisk (*).

```
ENTER KEY OPERATOR CODE      ***--
```

- The key operator code is factory set for "00000".

- The screen appears like this.

```
ENTER PROGRAM NUMBER.
AFTER ENTERING, PRESS [PRINT].      P=
```

③ With the copy count setting key, enter the code number 19 and touch the input key.

- The screen appears like this.

```
P19: KEY OPERATOR CODE CHANGE

ENTER A NEW CODE.
AFTER ENTERING, PRESS [PRINT].      ( 00000~99999 )
                                     -----
```

④ Select a 5-digit code number and enter it with the copy count setting key.

Note: Write down the code number you are going to enter, because it is the new key operator code number.

⑤ Press the [PRINT] key.

The code number you has entered replaces the factory-set code.

⑥ To operator another key operator program, enter the program code and press the [PRINT] key. To terminate the program, press the [CA] key.

(2) Key operator program list

This list is valid if the registered key operator code number is entered first.

- Copy function setting program

	No.	Description	Remarks
Auditor	P10	Sets and clears department control counter	
	P11	Adds up copy count	
	P13	Deletes added-up copy count	
	P14	Sets department number (registration/erase/change/display)	
	P16	Sets and clears upper limit of copy count	
	P18	Gives alarm against the input of words for department number	
	P19	Changes key operator code number.	
Function setting/ selection	P20	Adjusts automatic copy density level	
	P21	Sets power save mode time interval	
	P21	Sets preheat/power save mode	
	P23	Sets auto clear time	
	P24	Sets fixed magnification ratio	
	P25	Sets upper limit of copy set count	
	P26	Sets standard value of binding margin	
	P27	Sets standard values of frame deletion width/center deletion width	
	P27	Sets frame deletion width	
Function setting/ selection	P28	Sets standard state	
	P29	Calls total copy counts (frequency)	
	P31	Sets preheating mode	
	P42	Selects binding allowance direction change functions	
	P45	Sets message display time	
	P46	Sets operation inhibition mode	
	P47	Sets stream feeding mode	
Digital	P65	Sets key touch alarm	

	No.	Description	Remarks
Inhibition item	P70	Disables paper automatic switching function	
	P71	Disables tray automatic switching	
	P72	Disables the use of manual feed in automatic duplex copying mode	
	P73	Disables rewriting of registered copy condition	
	P74	Disables the use of document automatic feeding unit	
	P75	Disables automatic duplex copying	
	P76	Disables the use of staple function	
	P80	Disables copying when size/direction alarm is produced	
	P83	Enables access to PC/Modem	
List/others	P90	Displays program list	

- Details of key operator program list (copy)

P number	Message-related information	Message	Key input 1	Key input 2	Action	Remarks
(Introduction)		Enter key operator code ----	Enter key operator code (00000 ~ 99999)			
(Introduction)	After entering key operator code	Enter program number. After entering, press [PRINT]. P=---	Enter program number	[PRINT]	Key operator setting screen	2-digit input is possible
P10		P10: Department counter setting is possible. 1: Set 2: Clear	1,2	[PRINT]		Factory set for 2: Clear
P11		P11: Adding up copy count. Enter the department number you want to display. After entering, press [PRINT]. Department number: 00000 Number of copies to be used: 00000	5-digit input or scroll key	After 5-digit input, press [PRINT].		The total copy counter counts only the number of valid copies.
P13		P13: Erases added-up copy count. 1: Delete in all departments 2: Delete in each department	1,2			
P14		P14: Sets department number 1: Registration 2: Delete 3: Change 4: Display				
P16		P16: Limits the number of copies (account limit) 1: Set 2: Clear	1,2			
P18		P18: When 3 wrong department numbers are entered in sequence, produce alarm? 1: Yes 2: No	1,2			
P19		P19: Key operator code change Enter a new code. After entering, press [PRINT] (00000 ~ 99999). 00000	Enter key operator code (00000 ~ 99999)	[PRINT]	Key operator code is changed.	Factory set for 00000.
P20		P20: Auto exposure level adjustment 1: Light 2: Little light 3: Standard 4: Little dark 5: Dark	1,2,3,4,5			Factory set for "Standard"

P number	Message-related information	Message	Key input 1	Key input 2	Action	Remarks
P21		P21: Sets power save mode Sets lapse time. After entering, press [PRINT]. (C: Cancel 0:10 ~ 24:00) X:X0	2-digit number		The power save mode time is entered in the unit of 10 minutes within the range from 10 ~ 24 hours.	Initial value is C:Cancel. When the copier equipped with printer board is in the power save mode, the LCD goes out with the [PRINT] key blinking. The copier is restarted by pressing [PRINT]. The copier automatically starts up when it receives print data. If the copier without printer board enters the power save mode, the power supply is shut down.
P21 When simulations are switched over		P21: Sets power save mode Set lapse time. After entering, press [PRINT]. (0:10 ~ 2:00) X:X0	2-digit number		The power save mode time is entered in the unit of 10 minutes within the range of 10 minutes to 2 hours. If the copier is left for the preset time after the end of copying, the power switch is automatically turned off.	Factory set for 60 minutes. No cancellation is possible.
P23		P23: Sets auto clear mode Set auto clear time. After entering, press [PRINT]. (101 ~ 240 seconds. 000 disables the mode.)	Enter auto clear time (10 ~ 240)	[PRINT]	Auto clear time is set.	Initial value is 60. With auto clear mode disabled, fax memory reception data in the copy mode is output 240 seconds after the copier is left.
P24		P24: Sets and changes program magnification ratio Press "REDUCTION" or "ENLARGEMENT".	Reduction, enlargement			
P25		P25: Sets the upper limit of copies to be made Enter the upper limit. After entering, press [PRINT]. ---	Enter upper limit (000 ~ 999).	[PRINT]		Initial value 999 Incompatible with fax
P26		P26: Sets binding allowance Face side Back side Allowance Key Allowance Key 0 1 0 1 3mm 2 3mm 2 6mm 3 6mm 3 9mm 4 9mm 4 12mm 5 12mm 5 15mm 6 15mm 6	1, 2, 3, 4, 5, and 6 for each side		Standard binding allowance is set.	Factory set at 9 mm for each side.
P27		P27: Sets frame deletion width Enter frame deletion width. After entering, press [PRINT]. (0 ~ 20 mm) --	Enter number (0 ~ 20).		Frame deletion width is set.	Initial value is 5

P number	Message-related information	Message	Key input 1	Key input 2	Action	Remarks
P28		P28: Sets copy standard mode Set copy standard mode. After entering, press [PRINT]. (Magnification ratio) (Density)	Set standard mode.	[PRINT]	Copy standard mode is set.	The setting of the number of copies to be made, 1 set 2 copies, Different magnification ratios for longitudinal and vertical directions, and reverse video is not possible. The tray in all clear is the one selected by P28; the tray selected when power is turned ON is the tray which has been selected before the power is turned OFF.
P29		P29: Calls total counter Copy : XXX, XXX Document feeder : XXX, XXX Duplex : XXX, XXX Stapler : XXX, XXX Printer output : XXX, XXX PDA/ZR print : XXX, XXX			Total counter is displayed.	
P31		P31: Sets preheating mode. Set preheating mode time. After entering, press [PRINT]. (1 ~ 30 minutes. Preheating mode is canceled when set for 0.) 00	2-digit input	[PRINT]	The setting is made in steps of 1 minute within the range of 1 ~ 30 minutes. When set for 0, the preheating mode is canceled.	Factory set for 10 minutes.
P42		P42: Selects between right/left binding 1: Set 2: Clear	1,2			
P45		P45: Sets message display time Set message display time. After entering, press [PRINT]. (1 ~ 12 seconds)	Enter time (1 ~ 12 seconds).	[PRINT]	Message display time is set.	Initial value is 6.
P46		P46: Set operation inhibition mode 1: Set 2: Clear	1,2			
P47		P47: Sets stream feeding mode (document feeder) 1: Set 2: Clear	1,2			Factory set for "Clear".
P65		P65: Sets key touch alarm 1: Set 2: Clear	1,2			Factory set
P70		P70: Disables paper automatic selection function 1: Disable 2: Enable	1,2			Factory set for "Enable"
P71		P71: Disables paper tray automatic switching 1: Disable 2: Enable	1,2			Factory set for "Enable"

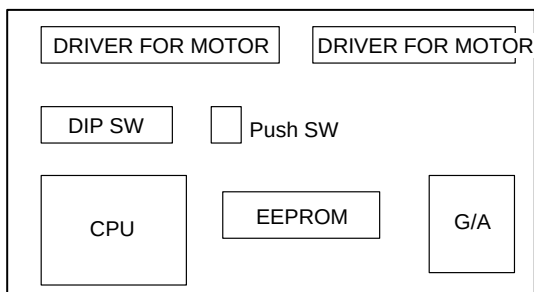
P number	Message-related information	Message	Key input 1	Key input 2	Action	Remarks
P72		P72: Disables the use of manual feed tray during automatic duplex copying 1: Disable 2: Enable	1,2			Factory set for "Enable"
P73		P73: Disables the rewriting of registered copy condition 1: Disable 2: Enable	1,2			Factory set for "Enable"
P74		P74: Disables the use of document automatic feeder 1: Disable 2: Enable	1,2			Factory set for "Enable"
P75		P75: Disables the use of automatic duplex copying function 1: Disable 2: Enable	1,2			Factory set for "Enable"
P76		P76: Disables the use of staple 1: Disable 2: Enable	1,2			Factory set for "Enable"
P80		P80: Disables copying when size/direction alarm is produced 1: Disable 2: Enable	1,2			Factory set for "Enable"
P83		P83: Enables PC modem access 1: Enable 2: Disable	1,2			Factory set for "Disable"
P90		P90: Program list Selection: Press [→]. Execution: Press [PRINT]	→	[PRINT]	Each screen displays 3 programs and their settings.	Programs which allows "Set/Clear" or "Disable/Enable" have "●" at their left-hand side when Set or Disabled. (Refer to Appendix 2.). Three program names are displayed for each screen, with one name in reverse video. You can scroll the screen with the [→] key, and you can enter the program displayed in reverse video by pressing the [PRINT] key.

11. RADF test mode

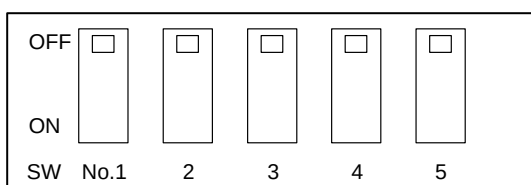
(1) DIP switch

The DIP switch on the control PWB shown below allows the individual operation check of the RADF.

A. Control PWB outline



B. DIP switch outline



a. Entering the test mode:

While pressing the push switch on the control PWB, supply the power, and the machine will enter the test mode.

b. Mode setting in the test mode when supplying the power

Switch	ON	OFF
Push switch	RADF individual unit operation test mode	PPC main body connection mode
DIP switch 1	For AB series	For inch series

c. Kinds of test modes and DIP switch setting

No.	Test mode	DIP switch
A	Single paper pass mode	All OFF
B	Duplex paper pass mode	1 is ON, all the others OFF
C	Single aging mode	1 and 3 ON; 2, 4, and 5 OFF
D	Duplex aging mode	4 ON, all the others OFF
E	Load check mode	1, 5 ON; 2, 3, 4 OFF
F	EEPROM initializing mode + all sensors adjustment mode	3, 5 ON; 1, 2, 4 OFF
G	Resist sensor adjustment mode	4, 5 ON; 1, 2, 3 OFF
H	Timing sensor adjustment mode	1, 4, 5 ON; 2, 3 OFF
I	Paper reverse sensor adjustment mode	3, 4, 5 ON; 1, 2 OFF

(2) Details of the test modes

Set the DIP switch on the control PWB, and open/close the DF to set the test mode.

Setting of the document size series (AB/inch) should be performed only when supplying the power.

A. Single paper pass mode (paper present)

When documents are set on the paper feed tray, the document feed LED lights up. When the push switch is pressed, all the documents on the tray are fed.

B. Duplex paper pass mode (paper present)

When documents are set on the paper feed tray, the document feed LED lights up. When the push switch is pressed, all the documents on the tray are fed.

C. Single aging mode (without paper)

When the push switch is pressed, aging is started. The operation timing is determined by size detection of each document size.

D. Duplex aging mode (without paper)

When the push switch is pressed, aging is started. The operation timing is determined by size detection of each document size.

E. Load check mode

Every time when the push switch pressed, the following operation is performed in sequence repeatedly.

- Read LED/Document remain LED ON, paper feed motor reverse rotation (500mm/sec)
- Operation stop
- Ready LED/Document remain LED ON, paper feed motor forward rotation (250mm/sec)
- Operation stop
- Ready LED/Document remain LED ON, electromagnetic clutch ON, transport motor forward rotation (800mm/sec)
- Operation stop
- Ready LED/Document remain LED ON, electromagnetic clutch ON, transport motor forward rotation (250mm/sec)
- Operation stop
- Ready LED/Document remain LED ON, electromagnetic clutch ON, transport motor forward rotation (800mm/sec)
- Operation stop
- Ready LED/Document remain LED ON, electromagnetic clutch ON, paper feed motor synchronization forward rotation (800mm/sec)
- Operation stop
- Ready LED/Document remain LED ON, shutter solenoid ON
- Operation stop
- Ready LED/Document remain LED ON, weight solenoid ON
- Operation stop
- Ready LED/Document remain LED ON, electromagnetic clutch ON
- Operation stop
- Ready LED/Document remain LED ON, electromagnetic brake ON
- Operation stop
- Ready LED/Document remain LED ON, flapper solenoid ON
- Operation stop
- Ready LED/Document remain LED ON, shutter solenoid ON, weight solenoid ON, paper feed motor reverse rotation

(500mm/sec)

z. Operation stop

Return to a.

F. EEPROM initializing + all sensors adjustment mode

When the push switch is pressed, the EEPROM is initialized. At that time, the LED blinks in the cycle of 100msec. After completion of initializing of the EEPROM, the LED turns ON. If there is an error in initializing of the EEPROM, the LED goes off. After initializing the EEPROM, adjust the resist sensor, the timing sensor, and the paper reversing sensor.

JAM, error kinds	LED display
EEPROM initializing error	Ready LED/Document remain LED OFF

G. Resist sensor adjustment mode

H. Timing sensor adjustment mode

I. Paper reversing sensor adjustment mode

When the push switch pressed, the adjustment of each sensor is started. At that time, the LED blinks in the cycle of 100msec. After completion of the adjustment, the LED turns ON. If there is an error in the adjustment, the LED blinks in the cycle of 100msec.

JAM, error kinds	LED display
Sensor adjustment upper limit error	Document remain LED blinks in the cycle of 100msec. Ready LED goes off.
Sensor adjustment lower limit error	Document remain LED goes off. Ready LED blinks in the cycle of 100msec.

(3) Kinds of errors (RADF single mode only)

The table below lists the kinds of JAM errors and LED display examples.

To cancel the JAM/motor lock errors, cancel the JAM and open/close the RADF, or supply the power again.

JAM error kinds	LED display
Not reached/remaining JAM in the paper feed section	Document remain LED blinks in the cycle of 100msec.
Not reached/remaining JAM in the paper feed section	Ready LED blinks in the cycle of 100msec.
Paper feed motor lock error	Document remain LED blinks in the cycle of 200msec.
Paper exit motor lock error	Ready LED blinks in the cycle of 200msec.
Resist/timing sensor adjustment error (when supplying the power)	Document remain LED blinks in the cycle of 100msec.
Paper reversing sensor adjustment error (when supplying the power)	Ready LED blinks in the cycle of 100msec.

[10] MAINTENANCE AND OTHERS

1. Maintenance intervals and items to be serviced

Remove the printer cable from the connector before trying to service or repair a digital copier with an optional printing function, with its rear cabinet removed.

If the copier is serviced or repaired with the printer cable connected, the printer could start operating due to a command that might be accidentally sent from the personal computer, thus causing an accident.

✕ Check ○ Cleaning ▲ Change △ Adjustment ☆ Lubrication □ Installing position change

Unit name	Parts name	When calling	80K	160K	240K	320K	Remarks
Drum and allied components	Drum		✕	▲	✕	▲	To be factory attached
	Drum DSD collar		✕	✕	✕	✕	
	Cleaner, blade		▲	▲	▲	▲	
	Toner receiving seal		✕	▲	✕	▲	
	Screen grid	(○) ✕	▲	▲	▲	▲	
	Drum separation pawl unit		▲	▲□	▲	▲□	Change the installing position at 80 K
	Charging blade (saw blade)	○	▲	▲	▲	▲	
	Charger case (MC)	○	○	○	○	○	
	Charger wire (TC/AC)	○	▲	▲	▲	▲	
	Waste toner bottle	✕					To be replaced by user about every 27 K
	D.L.		○	○	○	○	
	Charger case (TC/AC)	○	○	○	○	○	
	Drum concentration sensor		○	○	○	○	
	Drum mark sensor		○	○	○	○	
Developing section	Developer		▲	▲	▲	▲	To be charged at the time of installation
	DV seal		✕	▲	✕	▲	
	DSD collar		○	○	○	○	
	DV side seal F/R		✕	▲	✕	▲	
	Toner cartridge						To be charged at the time of installation
Fusing section	Upper heat roller	(○) ✕	(○) ✕	▲	(○) ✕	▲	
	Lower heat roller	(○) ✕	(○) ✕	▲	(○) ✕	▲	
	Upper cleaning roller		▲	▲	▲	▲	
	Lower cleaning roller		▲	▲	▲	▲	To be factory attached
	Upper separation pawl	(○) ✕	▲	▲	▲	▲	
	Lower separation pawl	(○) ✕	▲	▲	▲	▲	
	Thermistor		○	○	○	○	
	Upper fusing guide		○	○	○	○	
	Upper heat roller gear		☆	▲	☆	▲	
Optical section	Gears		☆	☆	☆	☆	
	Mirror/lens/reflector/sensor	○	○	○	○	○	
	Table glass/dust-proof glass	○	○	○	○	○	
	Rails		☆	☆	☆	☆	
	Drive wire/pulley		✕	✕	✕	✕	
Ozone filters	Anti-vibration leaf spring R unit		✕	✕	✕	▲	
			▲	▲	▲	▲	
Paper feed section (manual/500 sheets)	Paper feed rollers (manual/500-sheets cassette)	(○) ✕	○	○	○	○	[Replacement interval: see Note 1]
	500-sheets cassette brake spring	✕	☆	☆	☆	☆	
	Torque limiter (manual/500-sheets cassette)	✕	✕	○☆	✕	○☆	
Suction	Suction belt	(○) ✕	○	○	○	○	
Transport section	PS follower roller	(○) ✕	○	○	○	○	
	Transport rollers	(○) ✕	○	○	○	○	
	Paper exit follower roller (inside)	✕	☆	☆	☆	☆	
	Transport paper guides	(○) ✕	○	○	○	○	
Drive section	Gears (specified locations)	☆	☆	☆	☆	☆	
	(Especially gears between main motor and fusing section)			✕		✕	
	Belts			✕		✕	
RADF	Pick-up roller	(○) ✕	○	○	○	○	
	Paper feed/separation rollers	(○) ✕	○	○	○	○	[Replacement interval: see Note 1]
	Resist roller	(○) ✕	○	○	○	○	
	Transport belt	○	○	▲	○	▲	
	Reverse/paper exit roller	(○) ✕	○	○	○	○	
	Sensors		○	○	○	○	
LCC	3 pick up rollers	(○) ✕	○	○	○	○	[Replacement interval: see Note 1]
	Paper feed/separation rollers	(○) ✕	○	○	○	○	[Replacement interval: see Note 1]
	2 transport (resist) rollers	(○) ✕	○	○	○	○	
ADU	Paper feed rollers	(○) ✕	○	○	○	○	[Replacement interval: see Note 1]
	Torque limiter	✕	✕	○☆	✕	○☆	
	Transport rollers		○	○	○	○	
	Transport paper guides		○	○	○	○	
Picture quality		✕	✕	✕	✕	✕	

Note 1: Rough guide of replacement intervals

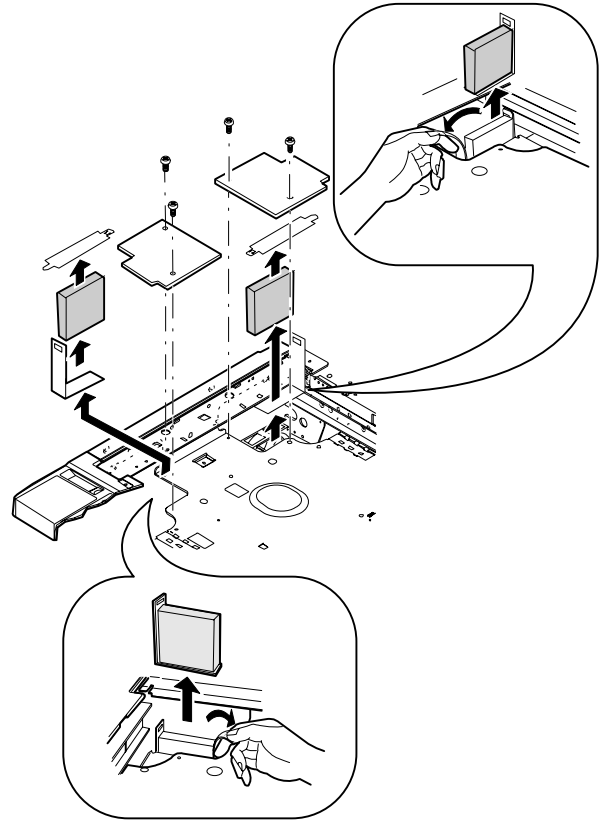
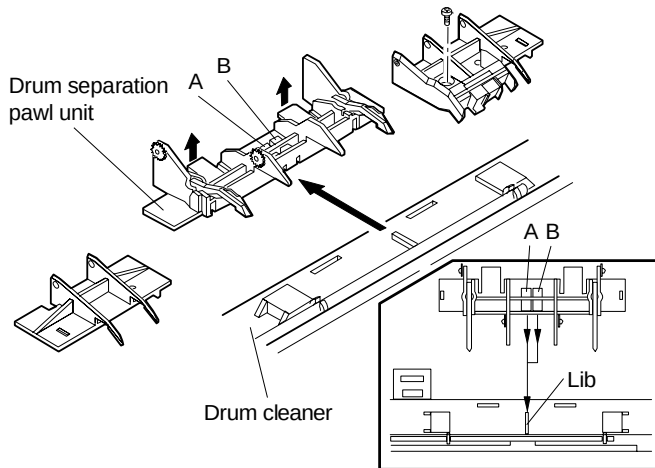
The rollers should be replaced, using the values indicated by the counter of each paper feed port as a rough guide.

- 500-sheets cassette: 80 K or 2 years (this also applies to built-in 500-sheets container.)
- Manual feed tray: 40 K or 2 years
- LCC: 80 K or 2 years
- RADF: 80 K or 2 years
- ADU: 40 K or 2 years

Note 2: If the drum separation pawl is brought into contact with the drum at a same position for 160K life period, the drum may be worn down remarkably. In order to prevent against this, change the installing position of the separation pawl at 80K maintenance.

<Procedure>

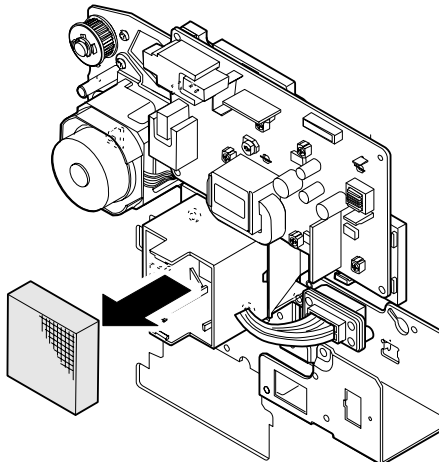
When replacing the drum separation pawl unit, change the marking position (which is fit with the positioning rib) from A → B → A ... at every 80K to change the contact position between the separation pawl and the drum.



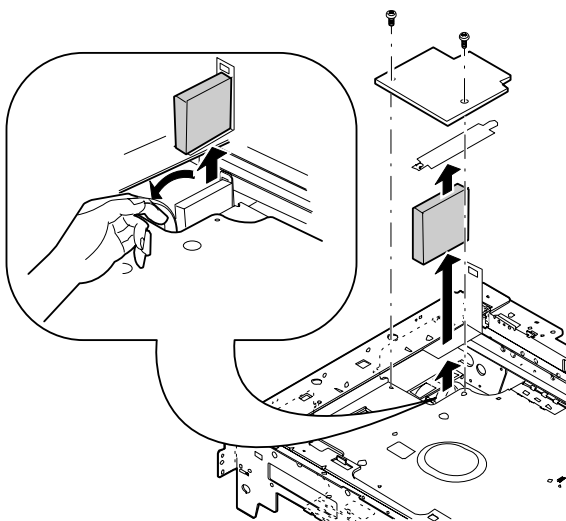
2. Replacing ozone filter

Ozone is produced during corona discharge by the charger unit. The ozone filter reduces the amount of ozone discharged from the copier. It is advisable to replace the ozone filter every 80 K of operation.

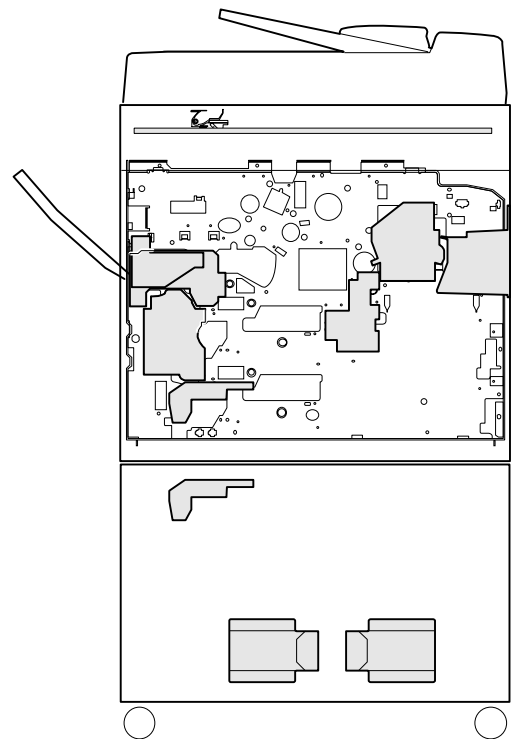
(1) Replacing ozone filter at suction section

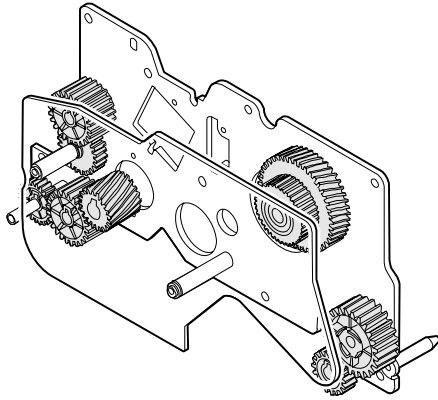
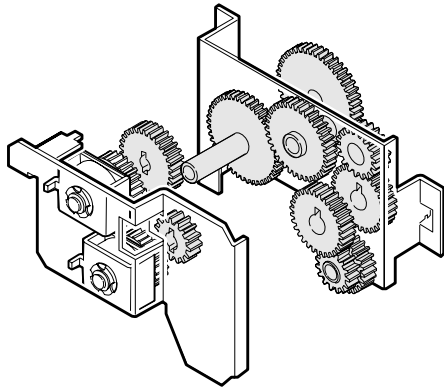
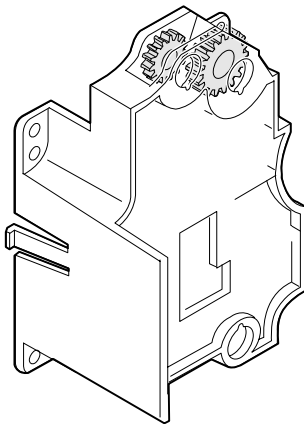
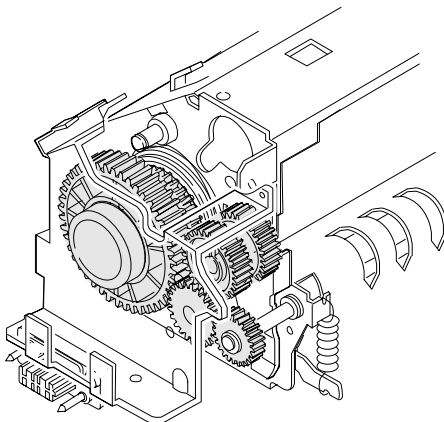
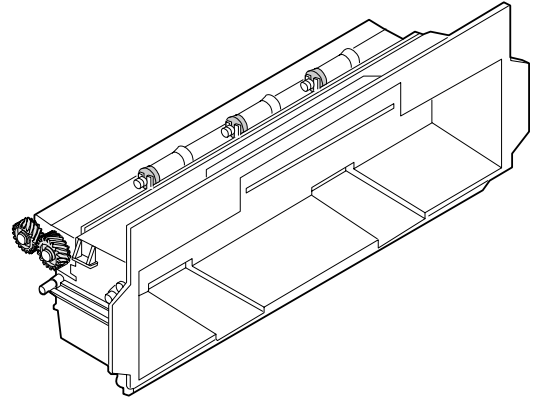
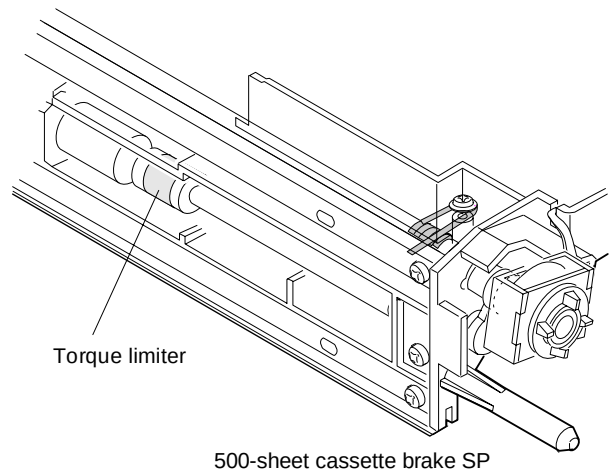
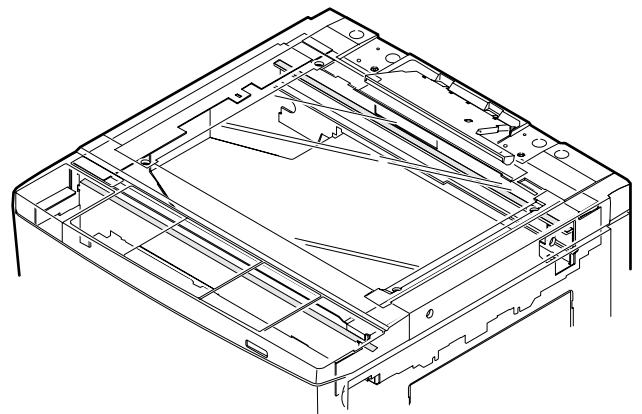


(2) Replacing ozone filter at ventilation fan motor



3. Oiling and greasing positions



(1) Main drive unit gear**(2) Paper feed speed change unit gear****(3) Paper feed drive unit gear****(4) Fusing drive gear****(5) Paper exit drive gear****(6) Paper feed torque limiter
500 sheet cassette brake SP****(7) Optical rail**

Note 1) Apply a proper amount of MolyCoat (UKOG-0062FCZZ) or White MolyCoat (UKOG-0158FCZZ) to the specified gears. Do not overlubricate.

Note 2) Under any circumstances, grease should not be applied inside the solenoid clutch gears.

4. Other maintenance intervals and items to be serviced

Service the other items according to the operating conditions of the copier.

- ADU: Execute SIM 22-09 to read the duplex counter. Perform maintenance according to the counter reading.
- Desk: Perform maintenance along with 80-K maintenance of the copier.

The RADF section should be serviced every 80 K, after checking the copy counter reading obtained by SIM 22-8.